STATISTICAL SOCIETY

BOROUGH OF PRESTON.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

TO THE

URBAN AND PORT SANITARY AUTHORITIES,

FOR THE

Year ending December 31st, 1911.

H. O. PILKINGTON,
Medical Officer of Health,
Medical Officer to the Port Sanitary Authority,
Medical Superintendent Isolation Hospital.

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Report of the Medical Officer of Health.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

Gentlemen,

The following Report deals with the sanitary condition of Preston, and the health of the inhabitants during the year 1911. This was the year in which the census of population was taken, such enumeration being made at decennial intervals. The actual counting was made on the night of April 1st, and a preliminary announcement of the result, subject to revision, was issued about June. The previous census in 1901 had shown the population of Preston to be 113,117, and the estimated increase each year had raised this amount to 120,000 for the middle of 1911.

It was, therefore, somewhat surprising, and certainly disappointing, to find that the result of the enumeration was to reduce these figures to 117,113, almost identical with the population as estimated as far back as the year 1899. Since the natural increase—the excess of births over deaths—for the succeeding 11 years had been equal to 13,346, the falling off from the expected figure can only be accounted for by the number of people who reside and sleep outside the Borough limits, and by the emigration out of the town largely exceeding the immigration, or very possibly by a combination of both these contributing causes.

Whilst an accurate return is to be desired, it is preferable that the population should be under—rather than over—estimated, in order to avoid a too favourable opinion being formed of the sanitary condition of the town, and its inhabitants. The figure upon which the vital statistics for the past year of 1911 are based is therefore 117,216, being the amount actually shown by the census returns with the addition of 103, being the estimated increase which might be expected to take place up to June.

The general construction of this Report is much the same as that adopted in former years, the vital statistics being first considered and analysed, and afterwards a short description being given of the various factors which have either had an adverse influence on the health of the town, or have tended towards its sanitary improvement.

The Tables, Charts, and Plans are similar to those which have now been in use for so many years, this conservative adherence to one system making it more easy to estimate the sanitary position of the town during any selected year, and to compare the figures with those of any year, or any series of years, which may have preceded or followed the period in question. As far as possible, I have avoided unnecessary detail and useless repetition, and I have also refrained from re-printing the text of the various Orders, Letters, and Memoranda issued by the Local Government Board; matters, which, together with other "padding," go to make the excellent Reports issued by many of my colleagues in other towns such bulky and imposing looking volumes.

Although somewhat higher than that for the two exceptionally good years immediately preceding, the mortality for the past year of 1911 cannot be regarded as unsatisfactory, especially when it is remembered that, as a result of the census, the population upon which the calculations are based is actually lower than that for either of the two years referred to. The unusually fine warm weather and high temperature of the summer months had an adverse influence by increasing the amount of summer diarrhœa; and, as will be shown later on, during the months of August and September a considerable number of infantile deaths were each week ascribed to this cause.

Following the order in which the various diseases are inscribed on the weekly sheets of mortality, I deal first of all with Small Pox. No death resulted from this cause, although the town could not be said to have been entirely free from the disease. Cases were, from time to time, reported as occurring at the principal ports, and though the sanitary precautions taken—forming the first line of defence—were, as a rule, sufficient to stamp out the infection, still in some instances the disease appeared to have passed the barrier, and afterwards made its appearance in some of the inland towns. Exemption from vaccination, which has now for some years been so frequently sought, and so easily obtained, has resulted in the production of a large number of children and young people who are unprotected, and susceptible to infection, and one cannot but consider, with grave anxiety, as to what may be the effect in any large town of a single case of Small Pox either wilfully concealed, or not recognised at an early stage.

Of the three cases occurring in Preston during the year, the first—in April—was, perhaps, the most important, because some of the attendant circumstances were of a dangerous character. The patient,—a young man—resided with his family at a second-hand clothes shop, the nature of the business possibly accounting for the introduction of the disease, and certainly increasing the chances of extension. The business was closed, the house and contents disinfected, and the patient isolated and carefully watched. Fortunately, most members of the family had already been re-vaccinated, and this, together with the precautions adopted and thoroughly carried out, proved sufficient to prevent any further spread of infection.

In the following month—May—two further cases were notified, but these were very modified in character; indeed, in one instance, so much so as to leave some doubt as to the true nature of the disease. Every available precaution was, however, taken, and in neither case was there any spread of infection. Although occurring within a short interval of each other, there did not appear to be any connection between the two cases in question, nor between either of them, and the one reported in the previous month. It is satisfactory to find that the sanitary measures adopted were again sufficient to save the town from an outbreak of Small Pox, but such a result may not always be attained. The number of exemptions from vaccination granted during recent years—a number which is steadily and constantly increasing—has had the effect of rendering a large section of the rising population susceptible to the disease, and, therefore, a source of danger to all with whom they must of necessity be brought into contact. Vessels, upon which cases of Small Pox have occurred are constantly entering our large sea ports; and contacts—persons who have been more or less exposed to infection—are thence distributed over all parts of the kingdom. Notice concerning these is forwarded to the Health Authorities of the places named as their intended destinations, and this precaution, combined with the excellent sanitation maintained at our ports has, for a number of years, sufficed to protect the country, and prevent the disease from obtaining more than a temporary foothold. But at any time this line of defence may be overcome, and with the large amount of material susceptible to infection, an epidemic may be started which it will be exceedingly difficult, if not impossible, to control.

The reported cases of Typhoid Fever numbered 113, the disease occurring principally amongst children and young adults. The deaths from this cause amounted to 19, or at the rate of 16.81 per cent. of the cases of sickness; whilst, distributed over the population, the rate of mortality was 0.17 per thousand. The disease never assumed anything like epidemic form, and was not especially prevalent in any one quarter of the town, or at any particular period of the year. Enquiries were made in each instance in order to ascertain, if possible, the cause and history of the disease, but in no case was there reason to believe that the infection had been conveyed through the medium of either the milk or water supply. Where there was any reason to suspect the drainage at the patient's residence, an inspection was made, and, if found to be defective, the drain was repaired, or, if necessary, relaid.

During the whole of the twelve months, Scarlet Fever was always more or less present, but in the month of May there was not only an increase in the number of cases notified, but the character of the disease appeared to assume a more serious form. In the course of a month or two some improvement was evident, but in November it again became prevalent, and one case, which terminated fatally after admission to hospital, was of a distinctly malignant type. The disease spread by direct contact with infected children, and, as is always the case in such outbreaks, the unrecognised, or concealed, cases were a constant source of danger ; and not unfrequently enquiry into some local outbreak, or into the appearance of the disease amongst the scholars attending some particular school, showed that in the first instance the infection had been spread by one or more cases of this description. Often medical assistance had not been called in, and it became a difficult matter to prove knowledge on the part of the parents as to the nature of the illness, otherwise a prosecution would, no doubt, have a deterrent effect upon cases, which may sometimes be due to ignorance, but which not seldom are the result of a selfish disregard on the part of one person for the comfort and welfare of others.

The deaths from Scarlet Fever were 19 in number, or at the rate of 5.08 per cent. of the reported cases, whilst 0.16 represented the rate of mortality per thousand from this cause. All the deaths were under the age of 15 years, the greater part being those of children between the ages of 1 and 5 years.

Measles was not prevalent during the past year, although towards the close there were indications that the infection, though not widespread, was still present in certain districts. Possibly, therefore, this is the best time in which, even at some risk of what may seem like useless repetition, to again warn parents that there is no necessity, and no reason, for a child to suffer from Measles, and that the disease, however lightly it may be regarded, is, of all the infectious fevers, the most deadly in its results, especially when contracted during infancy, or the first few years of childhood. It must be acknowledged that, despite the efforts of sanitary authorities and of health officials, little progress has been made in checking the prevalence of Measles, or in increasing the intervals which elapse between the various epidemics. Compulsory and voluntary notification have alike been tried, but with a few isolated exceptions, the results in either case have been unsatisfactory and discouraging. One characteristic of Measles, which distinguishes it from the other infectious fevers, and which undoubtedly does much to assist in its spread, is the fact that the child is in an infectious condition, and so a source of danger to others, before the appearance of the rash enables the nature of the illness to be definitely settled. This feature of the disease, and the fact that, in a considerable number of cases, medical assistance is not called in, or only when some complication, like Bronchitis, has supervened, does much to nullify the benefits which might result from notification, and therefore increases the objection to the heavy expenditure which such a course, with the subsequent inspection, must entail.

The greatest hope for improvement lies in the gradual spread of better knowledge amongst the people, and consequently a more general observance of the rules which would help to prevent and restrain any form of infectious disease.

Whooping Cough, so often associated with Measles, never assumed any severe epidemic form, although during nearly the whole course of the year cases were, from time to time, reported as occurring in the various Schools. An examination of the children, and the exclusion of all those who showed any—even the earliest—signs of infection had the effect of checking the disease and preventing any decided outbreak. This again is an illness which, like Measles, is infectious, and capable of being transmitted from one child to another, before its exact nature can with certainty be determined, and it is unfortunately one which too often is looked upon as an almost necessary adjunct to early life, and against which it is, therefore, useless to take even the most ordinary precautions. A better knowledge of the laws of health, and of the manner in which diseases of this character are conveyed from those affected to the healthy, will, in the course of time, do much to reduce the amount of sickness, and the consequent mortality.

In former Reports I have been able to speak with satisfaction as to the comparatively small amount of Diphtheria met with in Preston, but during the last two or three years the reported cases of sickness have steadily increased in number. As a consequence the admissions to hospital have risen, and though all the patients may not have been affected with true Diphtheria, still the septic condition of the throats often accompanied with fœtid nasal discharge, has been sufficiently serious to cause the cases to be regarded with grave suspicion, and to warrant their removal to the Isolation Wards.

Careful enquiry was made into the circumstances attendant upon each case notified, and, in some instances, conditions in or near to the patient's dwelling were discovered, which would seem sufficient to account for the outbreak, whilst in some others actual contact with a previous case of infection showed that the disease had been directly transmitted from one patient to another. When Scarlet Fever and Diphtheria are both present in a town, it sometimes becomes difficult to determine the exact nature of the disease, and so cases have been admitted on account of the severity of the throat symptoms in which the history of a recent slight rash, and subsequent desquamation, have gone to show that, in all probability, the case was really one of Scarlet Fever.

Again, there is good reason to suppose that a mixed infection, a combination of the poisons of Scarlet Fever and Diphtheria may exist at the same time in the same patient, the prevailing symptoms varying in different cases according to the degree in which one or other of the infective poisons has been absorbed.

The number of cases reported as Diphtheria was 232, and of these 32 terminated fatally, the percentage of deaths to cases being 13.79, whilst the rate of mortality from this cause was 0.26 per thousand of the population. In all cases admitted to hospital the Diphtheritic serum was at once injected, since its value in overcoming the poisonous germs depends, in a great measure, upon the promptitude with which it is used. The gratuitous provision of antitoxin serum to any medical practitioner making application was taken advantage of to a fairly large extent, and in this way some 246,000 units were distributed during the course of the year.

The mortality from Diarrhœa, though not so heavy as that which has been so frequently recorded in former years, was still in excess of that for any of the four years immediately preceding, and more especially contrasts unfavourably with the year 1909, when the death-rate from this disease was exceptionally low.

Although there was a high temperature on one or two days in the early part of June, and a still higher one recorded on July 12th, 13th, and 14th, it was not until the beginning of August that the mortality from Summer Diarrhœa amongst infants began to be observed. During that and the following month 123 deaths were registered from this cause, and almost the whole of these occurred amongst infants under the age of twelve months. Out of the total 136 deaths from Diarrhœa throughout the year, 114 were those of infants and 16 those of children between the ages of 1 and 5 years, leaving only 6 to be divided amongst those of greater age. The rate of mortality, divided amongst the whole population, amounted to 1.39 per thousand, and was below that of any of the large Lancashire towns. In proportion to the number of inhabitants, the districts which suffered most severely were Christ Church, Trinity, and Fishwick Wards.

Temperature and rainfall alike exercise very considerable influence over Summer Diarrhœa, and in this way the loss implied to the agriculturist by a cold wet summer is compensated for by the reduced amount of sickness observable amongst the infant population of both town and country.

But whilst the conditions of season and climate are beyond control, much can be done in each household to protect the younger members from Diarrhœa during the summer and autumn months, or, if it should appear, then to reduce, as far as possible, the severity and danger of the attack. Strict cleanliness of house and person, the prompt removal of all rubbish, especially of decaying animal and vegetable matter, the destruction of flies, and the safeguarding of provisions and milk from their attacks, ventilation and the admission of air both by day and by night throughout the house, would do much in this direction, and though the smaller and more confined the dwelling, the greater is the difficulty in observing some of these conditions, still it is in the narrow streets and crowded houses that they are most urgently required, and would be followed by the best results. For this reason, parents, especially those residing in the poorer parts of the town, are invited—and indeed urged—to report at the Health Office all cases of Diarrhœa occurring amongst young children, in order that the Health Visitor may attend at the house, and give assistance in the nursing and general management of the case. Artificial feeding, especially feeding with unsuitable substances, is responsible for many of the diarrhœal deaths, and, as shown in Table 4A., a large proportion of the fatal cases are registered between the ages of about 2 and 8 months, when children are so frequently fed upon substances which they are quite unable to digest, and which, therefore, act as sources of irritation.

The deaths from Consumption—111—though more numerous than those of the previous year, are slightly below the average of the past six years. With respect to this disease, a steady improvement has, for some considerable time, been apparent, no doubt in a great measure due to the improved conditions under which the working classes live, not only when at home, but also when pursuing their occupations in factory and workshop. Going as far back as 1870, the following table shows the Phthisis mortality during each of the quinquennial periods up to 1910, together with that for the past year of 1911 :—

MORTALITY FROM PHTHISIS.

PERIOD	RATE PER 1,000 OF POPULATION.
1871–1875	2.92
1876–1880	2.47
1881–1885	2.01
1886–1890	1.75
1891–1895	1.60
1896–1900	1.24
1901–1905	1.03
1906–1910	0.97
Year, 1911	0.94

Aided by recent legislation, a vigorous campaign against Consumption has now been commenced throughout the country, the disease having lately been included amongst those in respect to which notification is compulsory. Hitherto the system of notification only referred to such cases as were being treated in Union practice, or in hospitals deriving their income from sources other than the contributions of the patients, or the rates and taxes. It is now required that all cases shall be reported, and in this way a first and most important point—a knowledge of the enemy's position—will be gained. But whatever may be done by imperial or municipal legislation, the result of the contest rests, in a great measure, in the hands of the tuberculous patient, his family, and friends. Effectually to stamp out the disease, not only must the existing cases be treated, but every effort must be made to prevent the creation of further ones, by the transmission of the germs of infection from those affected to those—at present healthy— who must be brought into contact with them.

It is, therefore, essential that the instructions as to the precautionary measures to be adopted—whether given in a practical manner during the patient's residence in a sanatorium, or verbally or by leaflet through the agency of the Public Health officials—should be faithfully and unselfishly carried out. United action, and the loyal co-operation of all concerned can alone ensure success, but the stake at issue is of such supreme importance as to warrant every effort and even some occasional sacrifice. The cases of Phthisis reported during the year, under the Regulations of 1908 and 1911, numbered 62, whilst through death, or other causes, certain others came under observation.

Bronchitis and Inflammation of the Lungs, together accounted for 316 deaths, of which, as usual, the greater number were registered during the colder months at the beginning and close of the year. It was also amongst the very young and the old—the two extremes of life—that the greatest mortality prevailed, and so out of 199 deaths from Bronchitis, 57 were returned as under the age of twelve months, and 55 in persons who had exceeded the age of 65 years.

The next item on the list of mortality is one which each year accounts for a considerable number of deaths, grouped together under the heading, "Teething, Premature Births, and Debility." Necessarily, the greater number of these deaths—258—are those of infants, 58 being between the ages of 1 and 5 years, and 8 those of children slightly older. Table No. 4A, already referred to, gives further particulars as to the whole of the infantile deaths, dividing them into periods of one week up to the first month, and then into three-monthly periods up to the end of the year.

As already shown, Diarrhœa and Respiratory disease account for many of these deaths, 75 are due to Premature Birth, 69 to Atrophy, Debility and Marasmus, and 25 to Convulsions. The employment of mothers nearly up to the time of parturition is certainly the cause of many of these cases of Premature Birth, as well as of those in which the infant, never having lived, is buried as "still-born." To Suffocation, "overlying," 4 deaths are ascribed, and though the number may not appear large, still it represents a loss of life, which might, and should have been avoided.

The practice of allowing very young children to sleep in the same bed as their parents is one which must be attended with danger, since at any time the child's face may be covered, and the supply of air cut off from its lungs, by contact with the bed, the bed-clothes, or the body of its mother. In such cases death seems to come gradually and quietly, the parents are often tired out, and so sleep heavily after the day's work, and almost invariably there is nothing to attract attention, until, upon awakening, they find that the infant, which went to bed apparently in good health, is now dead.

The 473 deaths of infants within the Borough formed 26 per cent. of the total deaths at all ages, whilst the infantile mortality, calculated in the usual way, stood in the proportion of 173 to each thousand births. In other words, out of every thousand children born, 173 failed to survive the first year of their lives. This is higher than the number for the previous year, the increase being mainly caused by the diarrhœal mortality, but shows a very considerable improvement over any year prior to the commencement of the present century, when the average figure was considerably more than 200 per thousand births. But though a certain improvement has been effected, the present yearly loss of infantile life is much greater than it should be, many of the deaths are in reality avoidable, and are due to a want of care and judicious treatment on the part of those in whose hands the lives of these children have been placed.

If this fact is recognised, it ought to stimulate parents to greater efforts in the future, and to a more willing and whole-hearted co-operation with those who, by means of instruction and advice, are seeking to reduce this yearly sacrifice of infantile life.

The number of deaths registered as due to Old Age or Senile Decay, meaning a gradual loss of vital power without the presence of any actual disease, was 94, a number below the average of past years. Violence accounted for 56 deaths, of which 6 were due to suicide, and the remainder to accidents of various descriptions.

The remaining deaths to the number of 679 are grouped together under the heading, " Other Diseases," but with regard to many of these, further particulars are given in Table 3A, which it must be remembered deals with the deaths of all residents, whether occurring in or beyond the Borough limits, and therefore includes the deaths in the Fulwood Workhouse, in various asylums, as well as those of all persons who, having been away for pleasure or business purposes, have died in other towns.

This is a point which must be taken into consideration when studying the various Tables, the headings of which should be carefully noted, since some of them deal only with deaths within the town, whilst in others an addition is made of the deaths of former residents occurring outside the town, and a deduction of those persons who, living elsewhere, happen for various reasons to have been in Preston at the time of their death.

The Table in question shows that 172 deaths were due to Heart Disease, and 104 to some forms of malignant disease grouped together under the heading of Cancer.

Influenza, which was much less prevalent than in many recent years, accounted for 12 deaths, whilst 12 also were attributed to Rheumatic Fever, and 37 to Nephritis and Bright's Disease. These and other diseases not specially defined, bring up the total number of deaths to 1,984, including deaths in the Workhouse, Asylums, and outside the Borough boundaries.

The actual number of persons who died at all ages within the town—and it is with them that this Report is especially concerned—was 1,817, which, upon a population of 117,216, gives an annual rate of mortality equal to 15.50 per thousand. This is the lowest rate on record with the exception of those for the two years immediately preceding, but it must be noted that the population for those years was estimated at a higher figure than that for 1911, the year now under consideration.

The total number of births recorded throughout the year was 2,726, absolutely the lowest since 1850, a period of over 60 years. The natural increase—the excess of births over deaths—only amounted to 909 lives, a figure which contrasts unfavourably, and to a startling extent with those of former years, especially when the reduction in the death rate is taken into consideration. During the ten years of the present century, the birth rate has steadily fallen until it has now reached the low level of 23.25 per thousand, whereas, during many of the previous fifty years, it exceeded 40 per thousand (1869, 44.20; 1868, 43.82). the average rate for each year during the half century having been 38.77 per thousand. Taken in conjunction with a declining birth rate throughout the whole country, varying, of course, in extent in different towns and districts, it is impossible to avoid coming to the conclusion that interference with natural laws by the use of preventives, in different forms and at various stages of pregnancy, is becoming better known and more generally adopted. By some persons it may be, and indeed is, contended that this is an economical proceeding, and an evidence of thrift, on the part of those who in this way seek to limit the extent of their families, but, unfortunately, the practice is chiefly prevalent not amongst the very poor, who, until the children attain a wage-earning age, must needs have a hard struggle to bring up a large family, but amongst the rich and the fairly well-to-do classes of the community. With some the question of expense may be the prevailing motive, but with the majority it is probably a desire to avoid the restrictions entailed by maternity, and a disinclination to undertake the work (which should surely be a pleasant one), inseparable from the education and bringing up of a growing family. Apart from the moral aspect of the proceeding, and the important bearing which it must have upon the growth and progress of the nation, there is reason to believe that such interference with natural laws can only lead to impaired health, and possibly be the cause of various forms of disease. The evil is certainly a growing one, and as such calls for strong measures for its repression.

The number of illegitimate births registered during the year was 147, standing in the ratio of 5.4 per cent. of the total number.

Under the Notification of Births Act, 1907, information was received at the Health Office of 2,765 children born during the year. This very nearly corresponds with the registered number of births, although the figures can never be exactly the same, since a very small proportion of children born immediately before the close of one year will not be notified before the next year has commenced. The numbers are, however, sufficiently near as to show that now that the requirements of the Act are becoming more generally known, they are being conscientiously carried out, and though from ignorance or other causes there may occasionally be a little delay, the main object of the Act—the early information of each birth to the Health Authority—is being well attained.

The usual return of the year's work done by the Sanitary Inspectors is given on Table No. 9.

Mere figures as regards inspection and re-inspection give little actual information as to the nature or amount of the work done, since one case may literally be a mere matter of inspection, and another may require a good deal of attention, and may involve the expenditure of considerable time.

Each district has, however, been closely and regularly supervised, special visits being made where required, while matters such as Canal Boats, Cowsheds and Dairies, Markets and Slaughter Houses, Common Lodging Houses, &c., which are bound to comply with certain regulations, and to maintain a proper standard of cleanliness, have received regular and careful inspection.

With this Table should also be read Table No. 10, giving a list of the nuisances and defective conditions remedied, and other work done, in connection with the various Factories and Workshops throughout the town. Table No. 5A gives further information required under the Factory and Workshops Act, as to the number of registered workshops, inclusive of factories, bakehouses, etc., the amount and nature of the homework done, matters notified by H.M. Factory Inspector, and dealt with under the Public Health Act, &c. Table No. 11 is also connected with the same subject, and shows in detail the nature of the businesses carried on in the various Factories and Workshops at present on the register.

Whilst the sanitary condition of the dwellings of the people is a matter calling for constant attention, it is equally important that the places in which they spend their working hours—and, therefore, a large portion of their lives—should be kept clean, well lighted, well ventilated, and free from any condition opposed to health. Trades which can be classed as dangerous are rare in the town, and, therefore, there is little necessity for the provision and enforcement of apparatus for preventing poisonous fumes, metallic dust, and other dangerous matters from passing into the atmosphere, but the work required is rather on the lines of general sanitation. In this way considerable improvements have been effected in the general condition and sanitary arrangements both of the large factories and the smaller workshops, with proportionate advantage to the health of the persons employed.

The work of converting privies to water-closets, and abolishing the offensive ashpits, is practically completed in the town, although a few isolated cases may, from time to time, crop up, which have either been overlooked, or have previously been served with notices, which have lapsed.

The improvement of yard and lobby surfaces by the substitution of flags for the existing pebble pavement, which, by allowing the soakage of offensive liquids so greatly contributed to the contamination of the sub-soil, has been proceeded with ; although in this respect the numbers dealt with have not been so large as in many former years. But the number remaining to be dealt with is now not very large, whilst pressure of other duties has somewhat interfered with work in this direction during the past twelve months.

Drain testing has been proceeded with, both in houses where—possibly in connection with the notification of infectious disease—some defect has been either suspected or discovered, or where a tenant has complained of a nuisance, or has had some reasonable ground for requesting an examination.

The Report on Canal Boats was forwarded, as requested, to the Local Government Board at the beginning of the year. The following is a copy, and it will be seen that no alteration has taken place in the number of boats working upon this portion of the Canal, and that, apart from a few minor defects, remedied at once, their general condition has been satisfactory.

COUNTY BOROUGH OF PRESTON.

CANAL BOATS ACTS, 1877 AND 1884.

I beg to submit the following Report dealing with the condition of the Canal Boats coming under the jurisdiction of this Sanitary Authority, for the year ending December 31st, 1911.

No change has taken place during the past year in regard to these boats, 33 still remaining on the Register, 22 having been cancelled, thus shewing that a total of 55 has been registered.

The work of supervision has been carried out as in the past few years, by Inspector Crossthwaite, in addition to his other Sanitary duties, and without special remuneration.

In the Report for 1910 reference is made to notices being served to paint the cabins of seven boats, at a time when the said boats were in the Court of Chancery. The aforesaid notices have been complied with during the past year.

All but three of the boats have been inspected during the year. as have also others registered at Lancaster. Of these three, one, the "Mary Anne," No. 6, is plying on the Carnforth portion of the Canal; whilst the other two, "David," 54, and "Royal," 55, make occasional trips, and are not used for sleeping purposes. They are mostly stationed at their owner's works situate outside the Borough Boundary.

The "Elizabeth," No. 4, registered at Lancaster, has been broken up; the certificate was returned to this Authority, and duly forwarded to the supervising officer at Lancaster.

In several cases, infringements of the Regulations were found, consisting of cabins requiring painting, defective steps leading to cabin, and the absence of a water vessel and certificate.

The water vessel and certificate were immediately brought on board, at the Inspector's request, whilst the notices to paint the cabins were complied with in the specified time.

No cases of Infectious Disease have been found upon the boats, nor have any such cases been notified as occurring amongst the occupants.

The following table shows the details of occupation and inspection during the past ten years :—

	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
No. of Inspections ..	96	103	105	113	111	132	129	138	123	123
Males in occupation ..	104	113	140	142	146	169	162	167	150	162
Females in occupation.	48	38	64	71	59	67	78	82	81	73
Children in occupation.	46	29	53	68	33	46	79	87	81	75

All the other details are shewn on the attached Statistical Supplement.

H. O. Pilkington,

Medical Officer of Health.

All tents and vans coming into the town, during the Fairs or at holiday times, or making a short stay in their passage to other districts, have been inspected, in order to keep them up to the requisite standard of cleanliness, and to guard against the possible introduction of some form of infectious disease.

Little change has taken place in the Common Lodging Houses, which on the whole have been maintained in a satisfactory condition, having regard to the fact that many of them have not been built for the purpose to which they are now put, but were dwelling-houses, which have been more or less successfully adapted to their present purpose. It has been considered advisable to register such places, and so bring them under the supervision both of the Police and the Sanitary Inspectors, since otherwise they would frequently be used by casual nightly lodgers, although nominally let as furnished apartments.

For offences of this kind proceedings were taken in two instances, in one of which a fine of 50s. and costs was imposed, whilst the other was dismissed. Summonses were also taken against the keepers of three houses for permitting unmarried persons of opposite sexes to occupy the same room. Two cases resulted in fines of 20s. and costs, whilst the third was dismissed.

In my Report for 1910, I stated that, under the Housing and Town Planning Act, 1909, a number of suitable areas had been selected, and it was hoped that during the following year some of these would be reported upon, and, if possible, improved.

Certain blocks of property were accordingly taken in each of the four sanitary districts, and the houses forming them were separately and carefully examined. A considerable number of defects and insanitary conditions were found, such as defective roofs and gutters, broken floors, dirty and defective walls and ceilings, broken staircases, water-closets out of order, windows that would not open, etc. With the exception of the houses forming one street in No. 2 District, and in consequence of notices served upon the respective owners, these insanitary conditions were either remedied, or the necessary work had been commenced before the close of the year. The excepted street in question—Rye Street—contained a row of twelve houses on one side, and five on the other.

Three of the latter houses, in addition to other defects, had small low sculleries at the back which, without serving any useful purpose, had the effect of interfering with the circulation of air, besides cutting off the sunlight from the backs of the dwellings.

The buildings in question were pulled down, and the other defects remedied, with marked improvement to the houses. The twelve houses on the north side of the street, besides being very dirty, were structurally defective, and had the further disadvantage of having privies and ashpits, which were situated at too low a level to permit of their being drained into the sewer. I reported upon these houses as being unfit for human habitation, and, after the owner had attended, and pleaded his case, before the Health

Committee, a Closing Order was made, and the necessary notices were afterwards served. The owner then appealed to the Local Government Board. In due course, an Inspector came down, and made a careful examination of the property, which had undergone an equally careful preparation for the inspection. Up to the close of the year the result was not known, but since then notice has been received to the effect that the appeal was allowed, and the Closing Order consequently set aside.

The work of the Health Visitors is summarised on Table No. 11, from which it will be seen that attention has been given not only to infants immediately after birth, but also to children of older growth, those in attendance at the elementary schools.

The first named duty, that of visiting the births as soon as possible after notification is, of course, one of the most important, and is indeed the reason which in the first instance led to the appointment of these very valuable additions to the Sanitary staff. There can be no question as to the value of skilled advice and assistance, especially when given—as is so often the case—to a young mother, who is herself quite ignorant of the duties connected with maternity, or who has been brought up to methods, and instructed in traditions, which are utterly wrong and obsolete.

The value of the Health Visitor increases as she gains the confidence and affection of those with whom she has to deal, and it is satisfactory to find that, whilst at the time that these appointments were first made her visits were looked upon with a certain amount of distrust and suspicion, they are now, in the great majority of cases, sought after and welcomed.

The table in question shows the number of visits paid to births immediately after notification, and also records the condition of the houses, and the manner in which the infants were fed.

Another duty was that of visiting children who were reported to be suffering from minor infectious diseases, those which are not compulsorily notifiable, but which, if allowed to go unchecked, have often such a disastrous effect upon school attendance. It may be noted that, whilst nearly all the infants visited immediately after birth, probably within a week of the date of notification, are found to be breast fed, the great proportion of those who have died from diarrhœa, and who are generally a few months old, were, at the time of their death, artificially fed. This may not always be due to the one cause, but, in a great many instances, it is the result of the mother's early return to her occupation at the mill, and her consequent inability to continue natural feeding.

The following Table A shows the number of children reported from each of the schools as suffering from some form of infectious or contagious disease, and Table B gives the ages of those affected.

TABLE A.

	Scarlet Fever.	Measles.	Whooping Cough.	Diphtheria.	Chicken Pox.	Mumps	Ringworm Eczema, Sore Eyes, Heads, &c.
Parish Church	..	..	9	1	..	4	4
St. James	..	..	2	..	..	..	..
St. Augustine's	..	..	2	..	..	1	8
St. Saviour's	1	1	1	1	2	1	5
Grimshaw Street British	..	..	7	..	5	..	..
St. Stephen's	19	25	..	6	6	..	6
Christ Church	..	17	..	..	..	..	1
Hincksman Memorial	1	..	6	..	..	1	..
St. Mary's R. C.	..	3	1	1	10	..	19
St. Wilfrid's	1	..	..	1	..	..	..
St. Michael's	1	1	..	2	3	..	1
Sacred Heart	2	..	10	..	8	2	5
Ashton Wesleyan	..	..	15	1	9	1	19
St. Andrew's	6	..	1	2	6	1	11
Roebuck Street Council	..	..	31	..	20	2	20
St. Walburge's	1	..	5	..	..	1	3
St. Mark's	..	2	..	..	9	..	19
St. Peter's	3	..	3	..	6	..	14
Emmanuel	2	..	..	..	3	..	11
Plungington Road National	..	..	..	..	3	..	..
Eldon Street Council	5	..	12	..	3	1	2
Moor Park Wesleyan	..	..	1	1	..	..	..
English Martyrs'	..	2	..	..	3	..	..
St. Jude's, Kent Street	3	3	14	..	2	4	8
St. Jude's, St. Paul's Road	..	1	..	..	..	..	..
St. Paul's	3	2	..	..	..	1	2
English Martyrs', (Higher Grade)	3	17	..	1	3	1	..
St. Ignatius' ((Elementary)	..	4	8	..	12	6	8
St. Ignatius' (Higher Grade)	2	3	4	2	1	1	5
St. Thomas'	..	26	7	..	4	..	2
All Saints'	3	..	20	..	1	..	4
Holy Trinity	..	12	3	..	1	1	3
Orchard U. M. F. C.	2	..	..	..	4	..	..
St. Luke's	2	16	11	1	10	1	12
St. Joseph's	3	..	6	1	1	8	4
St. Matthew's (Elementary)	2	7	29	2	26	31	25
St. Matthew's (Branch)	1	15	2	..	1	21	3
Tennyson Road Wesleyan	..	1	7	1	1	40	3
St. Mary's National	2	7	9	1	2	2	6
St. Mary's Wesleyan	..	1	1	..	2	3	..
Deepdale Council	4	3	..	..	1	..	..
Park Secondary	..	1	..	..	..	..	..

TABLE B.

	0—3	3—4	4—5	5—6	6—7	7—8	8—9	9—10	10—	Total.
Scarlet Fever........	..	..	5	16	10	16	9	3	8	67
Measles	2	24	41	39	26	14	10	6	8	170
Whooping Cough	..	16	36	97	50	14	4	5	5	227
Diphtheria	..	..	4	6	4	2	..	2	7	24
Chicken Pox	1	7	22	50	45	17	9	5	9	165
Mumps	..	4	15	23	28	21	10	12	22	135
Ringworm, Eczema, Sore Eyes, Heads, &c.	..	7	16	50	43	29	26	19	43	231

Of course, in the case of diseases included in the schedule of the Notification Acts, 1889 and 1899, this information would only supplement that already in all probability received from the medical practitioner in attendance, but, as regards the minor infectious diseases, it enabled the Health Visitor to see the child at its home, give advice as to isolation and medical attendance, and prevent a too early return to school.

Although there is a decided improvement throughout the town as regards the number of children with dirty, sore, or verminous heads, this is a matter which requires constant attention and re-inspection. It is, of course, amongst the girls that this condition is chiefly found, and it is only by actual and close examination that the true state of things can be brought to light. This work entailed a considerable amount of time spent in the schools, as well as a number of visits to the children's homes, in order to see that suitable treatment was being adopted, and that the children did not return to school until the offensive condition had been entirely removed. Owing to the close contact of children when in school, and the small amount of space generally afforded in the cloak rooms, the dirty head of one child may be the means of affecting a number of others, and, apart from the effect upon health, it is obviously unfair that the children of cleanly parents should suffer from the neglected condition of others.

Communication between the Health and the Education Offices was not only kept up through the medium of the reports of infectious disease, but also through the lists supplied by the Schools' Medical Inspector, showing the defects present in certain of the children whom he had examined. In due course, and after a suitable interval had been allowed to elapse, these children were visited, and it was then ascertained how far the recommendation to obtain medical assistance had been carried out. Where nothing had been done, the parents were urged and encouraged to lose no further time, and, in the great majority of cases, the desired result was effected. A few instances where, from poverty, apathy, or other causes, it was found that the child had not obtained the necessary treatment, were relegated to the small Care Committees appointed in each parish, for the purpose of dealing with special cases of this description.

There has been a reduction in the number of registered midwives practising in the Borough. At the date of my last Report, there were 57 names upon the Register. One name has since been added, that of a midwife who came from Fleetwood, whilst 5 have been removed ; 3 on account of voluntary retirement due to ill-health, 1 through death, and 1 through removal from the district. At the time of the passing of the Midwives Act, 1902, only 7 per cent. of the women enrolled held any certificate of training. There are now 12 who hold some form of certificate, equal to 22 per cent. of the total number of names upon the local Register. The usual inspection of the midwives and their appliances took place at the beginning of the year, and since then many of them have been interviewed in connection with some special case, or some circumstance connected with their practice. During the twelve months no complaint was received against any midwife, nor was it necessary to suspend, or report any of them, for neglect or malpraxis, to the Central Board. As time goes on, the old school of midwives must die out, and their places will be taken by younger women, better trained, better versed in modern methods, and with more orthodox ideas as to the value of absolute cleanliness in the performance of their duties.

The Dairies and Cowsheds have been regularly visited, and every opportunity has been taken, and every effort made, to secure possible improvements. Taken all round their condition is fairly satisfactory, although the manner of milking, and dealing with the milk, still leaves much to be desired on the score of perfect cleanliness. Better conditions as regards lighting and ventilation have from time to time been secured, and in these respects, as well as in many others, the town shippons compare favourably with the majority of those in the surrounding country districts.

The Slaughter Houses, both public and private, have received regular attention, and not only have all animals intended for human food been inspected, either before, after, or during the process of slaughter, but equal attention has been given to the meat, fish, and vegetables exposed for sale, either in the private shops or upon the public markets. Meat, to the amount of 133,795 lbs. was condemned after inspection, and afterwards destroyed in the special chamber intended for this purpose at the Public Destructor. The whole of this meat was submitted for inspection, and destroyed with the consent of the owner, so that condemnation was not followed by any punitive proceedings. Fish also, to the total amount of 29,234 lbs., was treated in a similar manner, almost the whole of it having been taken at the Wholesale Market in connection with the Railway Station.

Although a certain number of private Slaughter Houses still remain in the town, the greatest amount of meat is killed at the Public Abattoir, where the advantages afforded are gradually overcoming the opposition which was at first offered by a section of the butchers, to its erection.

These advantages are its cool and breezy situation, its proximity to the cattle market, of which it really forms a part, and the facilities afforded both for slaughter and more especially for the hanging and cooling of the meat.

Another advantage, and one which should not be lost sight of, is that the position of the lairage, and the supervision of the Slaughter House, permit of the animal being killed with the least amount of suffering either as regards the anticipation or the realization of death. It would be well if throughout the country greater efforts were made to prevent unnecessary suffering for the animals which have to be slaughtered, either for food or other purposes.

In the hands of even an expert, the pole-axe is not an entirely satisfactory or certain implement, and it would be well if its use could be superseded by that of the "Humane Killer," or captive bolt pistol, as recommended by the Royal Society for the Prevention of Cruelty to Animals. Animals must be slaughtered, and day by day this process of slaughter is going on, and therefore it is only right that it should be done in the most satisfactory, and therefore the most humane, manner possible.

Samples of various articles of food in common daily use, to the number of 211, were purchased, with all the formalities required by the Food and Drugs Adulteration Act, 1875-1907, as were also 53 others, obtained in an informal manner.

Out of 62 samples of Milk purchased formally, 13 failed to pass satisfactorily the test of analysis, the chief fault being an amount of butter-fat below the recognized quantity, whilst in five instances there was also evidence of added water.

Where this was the case, a prosecution followed, and fines of 10s. to 20s., together with costs, were imposed. In the other cases, where the cream fell somewhat below the 3 per cent. standard, cautionary letters were sent to the respective vendors.

In the case of Potted Shrimps, containing 0.9 per cent. of borates, there were circumstances which seemed, in a great measure, to exonerate the actual vendor from blame, and the proceedings were accordingly withdrawn upon payment of costs.

Where a sample of Whiskey was found to be 25.9 degrees under proof, or 0.9 per cent. below the statutory limit, it was considered that the amount of dilution was not sufficient to call for a prosecution.

Although no action followed in the case of articles purchased informally, and found to be adulterated, or otherwise defective, the knowledge thus gained was of value, since it pointed to these articles being again analysed after purchase made in compliance with the formalities of the Act.

Information as to the whole of the articles analysed, whether purchased in a formal or informal manner, is given in Tables Nos. 15 and 16.

In the month of August, I had, in company with your Chairman, the privilege, accorded in previous years, of attending one of the Sanitary Congresses, which have now become recognized annual institutions.

The one attended was that of the Royal Institute of Public Health, held in Dublin, under the presidency of Her Excellency the Countess of Aberdeen.

An opportunity was thus afforded of seeing the sanitary condition of the Irish capital, of late years so much improved, and of hearing a number of lectures, papers, and discussions, all of great interest, and many of them dealing with the most recent questions of public health.

One great advantage of such meetings is the opportunity which they afford for an interchange of opinion amongst those engaged in the work of sanitation, and of acquiring from the experience of others some assistance towards the solution of difficult problems.

In concluding this Report, I would refer to certain work, which, although carried out in the Borough Surveyor's department, has an important bearing upon the health and general appearance of the town.

In a number of the larger streets, sett-paving, to the extent of 32,423 square yards, has been laid down, whilst the side walks, to the extent of 18,648 square yards, have been covered with flags.

Several of the older sewers have been re-laid, whilst, in the case of the trunk sewers, extensive repairs have also been carried out.

By the increase, in both area and depth, of Spade Mill Reservoir, the town's water supply has materially benefited, the storage here being now equal to two hundred and thirty million gallons, or an increase of one hundred and twenty million gallons over the original capacity of this reservoir.

The new Park, which takes its name from Miss Haslam, the generous donor, is rapidly approaching completion, and promises to vie in popularity with the other Parks, which form such an ornamental and distinctive feature of the town. Open-air spaces of this description, especially when filled with beautiful shrubs and flowers, do much, not only to improve the appearance of a town, but also to improve the moral and physical character of its inhabitants.

Finally, I regret that owing, in the early part of the year, to deficiency of numbers in the clerical department, and to pressure of work in connection with the Tuberculosis question, this Report has been delayed until such a late period of the year, and one so much beyond its usual time of publication.

H. O. PILKINGTON,
MEDICAL OFFICER OF HEALTH.

Sept. 2nd, 1912.

THE ISOLATION HOSPITAL.

Each year, since the Hospital was opened in 1907, there has been a gradual increase in the number of patients dealt with, and the returns show that this increase was most marked during the past year of 1911. At the beginning of the year, the number of patients in Hospital was Typhoid Fever 11, Scarlet Fever, 12, Diphtheria 5, whilst the admissions have been respectively 70, 255, and 114, making a total of 467 cases treated during the twelve months.

As regards the first-named disease—Typhoid Fever—the greatest number of cases was treated during the early months of the year, but the available number of beds was at all times sufficient to satisfy the demands for admission.

A family, consisting of the mother and five children, were admitted, within the space of a few days, from one house in Smith Street, as was also a relative residing in another house in the same street. The last-named patient, and the mother both died, but the children, after illnesses of varying extent, were discharged in good health.

The entries of Scarlet Fever cases continued throughout the year, and at times were so numerous as to test the wards to their utmost capacity, every available bed being fully occupied. This was especially the case towards the close of the year, and in December both pavilions were completely filled, although a number of extra beds and cots had been requisitioned to meet the emergency. Occasionally cases were admitted in which the type of disease seemed to have reverted to the more severe, and even malignant, form which twenty years ago was much more frequently met with. As might be expected these succumbed, as a rule, shortly after admission, but the majority of cases, although with varying degrees of severity, were of the type commonly seen at the present time.

The deaths were 14 in number, but of these 3 were due to Bronchitis or Pneumonia, contracted before admission, and one to Emphysema and Cardiac failure coming on during the progress of convalescence.

As far as possible, one pavilion was used for patients who were recovering, and the other for those in the earlier or more acute stages, whilst those in a septic condition were isolated in the small observation wards.

In April, a young nurse, in attendance upon the Scarlet Fever patients, contracted the disease, and was removed from the administrative block to a private ward. The disease ran the usual course, and, I am glad to say, terminated in complete recovery.

As a result of the increased prevalence of Diphtheria, the number of admissions was considerably in excess of that for any of the previous years.

The deaths amounted to 13, the great majority being infants or young children, attacked by a severe form of the disease, who succumbed within a very short time—in some instances only a few hours—after admission to Hospital. In two of these cases, tracheotomy had been performed prior to the patient's removal from home. One child suffered from severe ulceration of the cheeks, lips, etc., but, after a protracted illness, eventually made a good recovery.

Great care has always been taken to see that patients do not leave the Hospital until in a fit condition to do so, and since the opening of the Institution, the number of return cases has been small. There were, during the past year, a very few instances in which a second case of Scarlet Fever has occurred in a family within a short time after a patient's return home from Hospital.

These might be return cases, but, on the other hand, it is equally probable that the second case was contracted in the same manner, and possibly from the same source, as the first; or that some article of dress, etc., belonging to the initial case had been too carefully put away at the time that the house was disinfected, and so had remained with the germs undestroyed, to be again brought into use on the patient's return.

As already stated, the total number of patients treated during the past twelve months, was considerably in excess of that for any previous year, and consequently, as might be expected, the total expenditure is also greater.

But while there is an increase in the total amount paid for provisions, drugs, and dressings, coal, and salaries, there is, as regards both patients and staff, in the cost per head of food, a marked reduction.

This is partly due to the strict economy and supervision exercised, and also in part to the small proportion of Typhoid cases, always the most expensive in hospital treatment. The sum put down to drugs and dressings has been largely increased by the expense attendant upon the gratuitous distribution of anti-diphtheritic serum to the Medical profession; and also by the large amount of serum used in hospital, consequent upon the increased number of patients admitted.

Information as to the expenditure for the year, and a comparison with that of previous years is set forth in the following Table :—

ISOLATION HOSPITAL.

MAINTENANCE, 1911, AND PREVIOUS YEARS.

			£	s.	d.
1908	Year.	Cost of Food (Patients and Staff)	562	19	8
1909	,,	,, ,, ,, ,, ,, ,,	581	5	4
1910	,,	,, ,, ,, ,, ,, ,,	671	18	3
1911	,,	,, ,, ,, ,, ,, ,,	691	7	7
1908	,,	Cost of Drugs, Dressings, &c.	50	2	0
1909	,,	,, ,, ,, ,, ,, ,,	38	15	0
1910	,,	,, ,, ,, ,, ,, ,,	46	13	8
* 1911	,,	,, ,, ,, ,, ,, ,,	99	10	0
1908	,,	Cost of Coal and Slack	212	12	5
1909	,,	,, ,, ,, ,, ,,	212	0	0
1910	,,	,, ,, ,, ,, ,,	222	3	0
1911	,,	,, ,, ,, ,, ,,	230	8	11
1908	,,	Salaries	435	5	5
1909	,,	,,	476	10	1
1910	,,	,,	483	5	0
1911	,,	,,	492	15	5

Cost of Food at the rate of :—

1908	Year.	9¾d. per day per person,	5s. 8d. per week	£14 14 8	per annum.
1909	,,	8d. ,, ,, ,, ,,	4s. 8d. ,, ,,	£12 12 8	,, ,,
1910	,,	9¼d. ,, ,, ,, ,,	5s. 4¾d. ,, ,,	£14 0 7	,, ,,
1911	,,	7d. ,, ,, ,, ,,	4s. 1d. ,, ,,	£10 12 4	,, ,,

Year.	No. of Patients.	Total Expenditure.
1908	153	£2384 7 8
1909	223	£2046 12 9
1910	308	£2181 8 10
1911	467	£2414 16 11

Average number of patients per day, 46.

Average number of days in Hospital per patient, 38.2.

Average total daily cost (based on total expenditure), £6 12s. 4d.

Average total cost per patient (based on total expenditure), £5 10s. 0d.

* This includes £16 18s. 0d. for Anti-Diphtheria Serum supplied to Medical Practitioners.

The sums paid to other departments of the Corporation have not varied much, and are as follows :—

	£	s.	d.
Tramways Department, for Current, Lamps	47	13	9
Water ,, for Water	43	5	4
Rate ,, for Rates	225	0	0
Estate Committee for Ground Rent	56	6	4
	£372	5	5

I have again to acknowledge the assistance which, throughout the year, I have received from the Matron and all connected with the Hospital, both as regards its management, and the treatment of the patients.

H. O. PILKINGTON.
MEDICAL SUPERINTENDENT.

Sept. 2nd, 1912.

PORT SANITARY.

The number of vessels—chiefly steamers—which has been inspected at the Dock or quay side during the past year is not quite so large as that for 1910, a result probably due to the coal and railway strikes, which here, as elsewhere, had a disastrous effect upon the trade of the Port.

Another reason is that the smaller vessels, those engaged in the coasting trade, having already been inspected a considerable number of times, do not now require examination on each of their visits to the Port.

The defective conditions found upon inspection were of much the usual character, and were, in the great majority of cases, remedied upon the verbal application of the Inspector, and before the vessel quitted the dock. A return of these defects, and of the number of inspections, is given in Table No. 17.

In March, Dr. Coutts, Inspector of the Local Government Board, visited the town, and enquired as to its food supply, and the supervision exercised over the various food-stuffs brought by incoming vessels.

The great bulk of these have previously been examined at Liverpool or other large ports, but there is the possibility that some may have been discharged overside, or may in other ways have escaped examination. Consequently a more vigorous and detailed examination has since been made of all food-stuffs which are either lying in the holds of the vessels, or have been removed to the dock warehouses, a proceeding entailing a great amount of work, the results of which are set forth in Table No. 17.

As will be seen from the list of articles dealt with, a considerable amount of sugar was found to have been damaged by salt water. In accordance with the custom prevailing in the larger ports, this was returned to the makers, in order that it might undergo a process of refining, and practically of re-manufacture.

The carcases of meat destroyed were those of animals which had been killed, or so bruised as to render them unfit for human food, during heavy weather at sea.

With the consent of the owner, they were removed to the town's destructor, and there burnt.

With an increased trade in grain and food-stuffs, and the erection of more sheds and warehouses, the rats in the neighbourhood of the dock would seem to be increasing in numbers. And this, in spite of efforts made to reduce their ranks through the agency of cats, traps, and various forms of virus. Very likely a well organised crusade, attacking them at one time from all directions, would have the best effect in keeping down an animal, which, although no doubt useful in its proper place, soon becomes a destructive, expensive, and dangerous nuisance, which rapidly increases, if allowed to remain undisturbed.

No case of infectious disease occurred on board any of the vessels. Such ailments as were reported proved to be of an ordinary character not calling for any precautionary measures.

The Dock Hospital, although subject to the dilapidations inseparable from an unused and uninhabited building, has been maintained in an efficient condition.

H. O. PILKINGTON,
Port Medical Officer.

Sept. 2nd, 1912.

TABLE No. 1.

Number and Causes of Deaths at different Ages, for the year 1911.

Cause of Death.	Under 1 Year.	1 to 5	5 to 15	15 to 25	25 to 65	65 and over.	Total.	Corresponding year, 1910.	Corresponding year, 1909.	Corresponding year 1908.	Average for the past six years.
Small Pox	...	...	...	...	...	...	...	...	...	...	...
Fever	1	1	2	5	10	...	19	20	11	25	19·00
Scarlatina	...	11	8	...	...	...	19	8	7	1	9·50
Measles	2	2	1	...	...	...	5	26	19	96	48·33
Diarrhœa	114	16	1	...	1	4	136	93	28	104	106·16
Whooping Cough	11	9	...	...	...	...	20	5	65	18	30·33
Diphtheria	...	17	15	...	...	...	32	18	12	11	17·21
Croup	1	4	1	...	...	...	6	...	4	7	5·33
Consumption	1	3	6	28	70	3	111	97	107	116	113·50
Bronchitis	57	24	5	...	58	55	199	188	237	240	231·83
Inflammation of Lungs	17	20	7	4	52	17	117	120	82	96	113·66
Teething, Premature Births and Debility.	258	58	8	...	...	...	324	365	320	366	352·00
Old Age	...	...	...	...	...	94	94	126	139	120	112·65
Violence, &c.	6	6	4	2	32	6	56	51	62	74	61·50
Other Diseases	5	13	40	34	392	195	679	641	628	701	669·00
Total	473	184	98	73	615	374	1817	1758	1721	1975	1890·00

TABLE No. 2.

Number and Causes of Death in each Month of the Year 1911.

Cause of Death.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever	...	1	1	2	4	...	1	3	...	2	2	3	19
Scralatina	1	1	1	1	2	...	3	4	1	1	1	3	19
Measles	2	1	1	1	...	...	...	...	...	...	...	...	5
Diarrhœa	...	...	...	1	1	...	...	70	53	10	1	...	136
Whooping Cough	...	2	2	1	4	1	...	4	2	...	1	3	20
Diphtheria	1	3	2	2	1	2	1	3	1	5	6	5	32
Croup	...	...	...	1	...	...	...	...	1	...	2	2	6
Consumption	9	8	11	13	14	10	6	9	9	3	9	10	111
Bronchitis	20	32	17	18	17	4	2	4	7	13	19	46	199
Inflammation of Lungs	12	12	12	7	12	5	5	6	7	6	7	26	117
Teething, Convulsions, &c.	25	26	34	32	23	17	18	42	29	29	15	34	324
Old Age	12	15	9	11	9	5	3	7	5	7	4	7	94
Violence, &c.	1	6	7	6	8	7	3	8	3	1	3	3	56
Other Diseases	55	51	63	60	59	49	55	63	49	47	47	81	679
Total	138	158	160	156	154	100	97	223	167	124	117	223	1817

TABLE No. 3.

Number and Causes of Death in each Ward for the year 1911.

Wards.	Small Pox.	Fever.	Scarlatina.	Measles.	Diarrhœa.	Whooping Cough.	Diphtheria.	Croup.	Consumption.	Bronchitis.	Inflammation of Lungs	Teething, Premature Births,& Debility.	Old Age.	Violence, &c.	Other Diseases.	Total Deaths.	Rate per 1,000 per ann.	Total Births.	Rate per 1,000 per ann.	Population.
St. John's Ward.....	...	1	...	1	10	3	5	2	14	26	10	39	10	4	63	188	16·00	283	24·07	11755
Avenham Ward......	...	3	1	...	6	...	3	...	8	5	8	11	7	1	47	100	13·94	102	14·22	7170
Christ Church Ward	...	1	1	3	19	1	2	...	9	14	3	22	7	9	27	118	14·00	220	26·10	8428
Ashton Ward.........	...	...	...	...	3	...	...	1	6	9	3	9	5	5	47	88	10·13	142	16·35	8685
Maudland Ward......	...	1	...	...	12	...	3	...	10	12	10	27	5	2	45	127	13·55	206	22·00	9372
St. Peter's Ward...	...	1	2	...	11	2	1	1	4	19	18	32	10	3	63	167	14·42	286	24·70	11579
Moor Brook Ward..	...	1	4	...	8	3	2	...	10	11	8	28	4	1	61	141	15·66	210	23·31	9005
Park Ward............	...	2	4	...	15	1	7	2	8	25	15	36	19	2	60	196	13·42	397	27·19	14603
Trinity Ward	...	2	2	...	23	2	1	...	6	23	11	37	12	1	47	167	16·51	250	24·72	10110
Deepdale Ward......	...	5	2	...	10	1	1	...	9	20	8	42	3	2	47	150	14 63	261	25·46	10250
Ribbleton Ward.....	...	2	2	1	7	5	2	...	12	18	10	15	8	...	37	119	13·40	218	24·51	8889
Fishwick Ward.......	...	..	1	...	12	2	4	...	11	14	5	15	3	3	46	116	15·73	148	20·09	7370
Goal, Infirmary, &c	...	...	...	...	...	...	1	...	4	3	8	11	1	23	89	140	...	3	...	...
Total............	...	19	19	5	136	20	32	6	111	199	117	324	94	56	678	1817	15·50	2726	23·25	117216

Death Rate per annum, per 1,000 of Population..	15·50
Do. Do. Do. Average for 10 years	16·49
Infantile Mortality (Deaths under one year per 1,000 Births) for the year	173
Do. Do. Do. Average for 10 years	166
Per centage of Deaths under one year to total deaths for the Year	26·00
Do. Do. Do. Average for 10 years	27·28

TABLE No. 4.

Number of Deaths in each Ward during each Month of 1911.

Wards.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
St. John's Ward	12	23	15	16	23	12	9	13	12	17	15	21	188
Avenham Ward	15	9	3	7	13	7	8	13	11	1	7	6	100
Christ Church Ward	9	10	10	8	8	4	5	21	14	8	6	15	118
Ashton Ward	7	6	8	4	9	6	3	10	6	7	6	16	88
Maudland Ward	10	20	13	9	7	7	2	11	12	8	9	19	127
St. Peter's Ward	11	11	16	15	12	9	7	13	18	13	14	28	167
Moor Brook Ward	7	5	22	10	8	6	8	20	7	14	8	26	141
Park Ward	10	12	21	16	15	10	9	22	23	16	14	28	196
Trinity Ward	18	16	9	11	9	2	10	21	26	15	13	17	167
Deepdale Ward	12	11	11	20	17	12	7	27	12	9	5	7	150
Ribbleton Ward	12	12	6	17	9	8	6	17	10	5	5	12	119
Fishwick Ward	5	7	10	12	14	7	8	20	7	4	6	16	116
Goal, Infirmary, &c.	10	16	16	11	10	10	15	15	9	7	9	12	140
Total	138	158	160	156	154	100	97	223	167	124	117	223	1817

TABLE 1A.

Vital Statistics of Whole District during 1911 and Previous Years.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Un-correc'd Number.	Nett.				of Non-resid'ts registered in the district	of Residents not regist'd in the district	Und'r 1 yr. of age		At all Ages.	
			Number.	Rate.	Number.	Rate.			Number.	Rate per 1,000 Nett Births.	Number	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1906	116,399	–	3317	28.49	2065	17.74	–	170	665	200	2235	19.20
1907	117,093	–	3124	26.68	2003	17.10	–	211	495	158	2214	18.90
1908	117,799	–	3309	27.56	1975	16.45	28	175	516	156	2122	17.67
1909	118,519	–	3027	25.54	1721	14.52	52	173	416	137	1842	15.54
1910	119,253	–	2812	23.58	1758	14.74	42	213	438	156	1929	16.17
1911	117,216	–	2726	23.25	1817	15.50	45	212	473	173	1984	16.92

Area of District in acres (exclusive of area covered by water) 3,721

Total population at all ages	117,113	At Census of 1911.
Number of inhabited houses	26,066	
Average number of persons per house..	4.49	

TABLE 2A.

Cases of Infectious Disease notified during the Year 1911.

NOTIFIABLE DISEASES.	NUMBER OF CASES NOTIFIED.								TOTAL CASES NOTIFIED IN EACH LOCALITY.												TOTAL CASES REMOVED TO HOSPITAL.
		At Ages—Years.																			
	At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.	St. John's Ward.	Avenham Ward.	Christ Church Ward.	Ashton Ward.	Maudland Ward.	St. Peter's Ward.	Moorbrook Ward.	Park Ward.	Trinity Ward.	Deepdale Ward.	Ribbleton Ward.	Fishwick Ward.	
Small Pox	2	..	..	..	2	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	232	..	71	127	18	15	..	1	23	14	14	31	14	27	23	27	11	14	22	12	114
Erysipelas	98	..	2	2	18	36	28	12	7	3	13	9	15	7	6	10	11	6	4	7	..
Scarlet Fever	374	2	106	250	10	5	1	..	21	35	24	29	18	39	54	50	39	30	18	17	255
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	113	..	11	35	31	24	12	..	6	9	11	5	6	1	12	17	13	16	9	8	70
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	6	..	..	..	2	4	..	..	2	..	..	..	..	1	..	1	..	1	..	1	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis: Under Tuberculosis Regulations, 1908	56	..	..	1	12	17	24	2	10	3	3	2	1	3	4	8	9	6	5	2	..
Phthisis: Under Tuberculosis Regulations, 1911	6	..	..	..	3	2	1	..	..	..	..	..	..	..	..	1	4	1	..	..	..
Phthisis: Others	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	887	2	190	415	96	103	66	15	70	64	65	76	54	79	99	114	87	74	58	47	439

Isolation Hospital— { Preston Borough Isolation Hospital,
Deepdale Road.

Total available beds—56. Number of Diseases that can be concurrently treated—3.

TABLE 3A.

Causes of, and Ages at, Death during the Year 1911.

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.									Total Deaths whether of "Residents" or "non-Residents" in Institutions in the District.
	All Ages.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and up-wards.	
All Causes :—										
Certified	1942	467	92	99	88	86	244	440	426	...
Uncertified	42	8	1	2	1	...	2	15	13	...
Enteric Fever	21	1	...	1	3	6	7	3	...	13
Small-pox	...	...	...	...	...	...	...	...	...	...
Measles	5	2	1	1	1	...	...	...	...	...
Scarlet Fever	19	...	2	9	8	...	...	...	...	14
Whooping Cough	20	11	7	2	...	...	...	...	...	...
Diphtheria and Membranous Croup	36	1	1	19	15	...	...	...	...	14
Influenza	12	...	1	1	...	...	3	2	5	...
Erysipelas	1	...	...	...	...	...	...	...	1	...
Phthisis (Pulmonary Tuberculosis)	149	...	2	3	7	38	56	37	6	7
Tuberculous Meningitis	23	3	2	9	6	3	...	...	...	2
Other Tuberculous Diseases	28	12	5	4	2	...	1	4	...	3
Rheumatic Fever	12	...	...	...	2	5	2	3	...	...
Cancer, Malignant Disease	104	...	...	1	...	...	12	64	27	12
Bronchitis	214	57	20	6	4	...	12	53	62	4
Pneumonia	127	17	14	9	6	5	24	34	18	9
Other Diseases of Respiratory Organs	17	2	1	2	1	1	5	4	1	1
Diarrhœa and Enteritis	170	137	15	5	1	1	...	3	8	2
Appendicitis and Typhlitis	9	...	...	...	2	4	...	2	1	9
Alcoholism	3	...	...	...	...	...	1	2	...	...
Cirrhosis of Liver	8	...	...	...	...	...	1	6	1	3
Nephritis and Bright's Disease	37	1	...	1	2	1	10	18	4	...
Puerperal Fever	2	...	...	...	...	...	2	...	...	...
Diseases and Accidents of Pregnancy and Parturition	13	...	...	...	...	1	11	1	...	...
Heart Disease	172	...	1	1	7	7	29	63	64	12
Congenital Debility and Malformation, including Premature Birth	151	147	2	2	...	...	...	...	...	3
Violent Deaths	49	6	1	6	2	...	13	13	8	20
Suicides	6	...	...	...	...	1	3	2	...	3
Old Age	127	...	...	...	...	...	...	2	125	1
Other Defined Diseases	446	76	20	18	20	13	54	138	107	48
Diseases ill-defined or Unknown	2	...	...	...	...	...	...	1	1	...
	1984	473	95	101	89	86	246	455	439	180

TABLE 4A.

Nett Deaths from stated Causes at various Ages under One Year of age during the Year 1911.

CAUSE OF DEATH.	Under 1 Week.	1 - 2 Weeks.	2 - 3 Weeks.	3 - 4 Weeks.	Total under 1 Month.	1 - 3 Months.	3 - 6 Months.	6 - 9 Months.	9 - 12 Months.	Total Deaths under One Year.
All Causes:—										
Certified	77	13	22	25	...	93	111	76	48	...
Uncertified	4	...	...	...	...	3	...	1	...	...
Small Pox	...	...	...	...	...	...	...	...	...	...
Chicken Pox	...	...	...	...	...	...	...	...	1	1
Measles	...	...	...	...	...	...	...	...	2	2
Scarlet Fever	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup	...	...	...	...	...	...	1	...	...	1
Whooping Cough	...	...	...	...	...	9	1	1	...	11
Diarrhœa	...	1	1	4	6	28	42	34	19	129
Enteritis	...	...	...	...	...	3	3	2	...	8
Tuberculous Meningitis	...	...	...	...	...	...	...	3	...	3
Abdominal Tuberculosis	...	...	...	...	...	2	1	2	2	7
Other Tuberculous Diseases	...	...	...	...	...	...	1	2	2	5
Congenital Malformations	4	...	1	...	5	1	...	1	...	7
Premature Birth	47	7	8	9	71	1	3	...	...	75
Atrophy, Debility and Marasmus	12	...	5	9	26	21	17	3	2	69
Atelectasis	4	...	...	...	4	...	...	...	...	4
Injury at Birth	...	...	...	..	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...
Syphilis	...	...	1	...	1	1	3	2	1	8
Rickets	...	...	...	...	...	...	...	1	...	1
Meningitis (not Tuberculous)	...	...	...	..	...	...	3	1	2	6
Convulsions	7	2	...	...	9	6	6	4	..	25
Gastritis	...	...	...	...	...	2	...	...	...	2
Laryngitis	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	5	3	8	14	14	10	11	57
Pneumonia	1	...	...	...	1	1	5	6	4	17
Suffocation, overlying	...	...	...	...	...	2	2	...	...	4
Other causes	6	3	1	...	10	5	9	5	2	31
Total	81	13	22	25	141	96	111	77	48	473

Nett Births in the Year, Legitimate 2,579

" " Illegitimate 147

TABLE No. 5.

Birth Rate, Death Rate, and Analysis of the Zymotic Death Rate in 39 of the largest English Towns, for the year ending 31st December, 1911. Compiled from the Registrar-General's Returns.

NAME OF TOWN.	Estimated Population. 1911.	Birth Rate.	Recorded Death Rate.	Enteric Fever.	Small Pox.	Measles.	Scarlet Fever.	Who'ping Cough.	Diphtheria.	Diarrhœa & Enteritis under 2 years	Deaths under 1 year to 1,000 Births.
London	4,522,628	24.5	14.7	0.03	0.00	0.54	0.04	0.22	0.13	1.17	128
Croydon	170,451	22.2	11.9	0.03	–	0.18	0.04	0.23	0.21	0.74	106
West Ham ...	289,646	28.9	15.1	0.09	–	0.72	0.02	0.21	0.16	1.77	142
Brighton	131,444	19.7	13.7	0.01	–	0.05	0.07	0.12	0.07	0.68	98
Portsmouth ...	232,221	25.3	14.2	0.12	–	0.13	0.09	0.18	0.32	1.19	125
Norwich	121,682	22.1	14.0	0.06	–	0.35	0.20	0.42	0.16	0.88	135
Plymouth	112,152	22.5	16.5	0.06	–	0.75	0.00	0.02	0.14	1.02	143
Bristol	357,509	21.3	14.8	0.04	–	0.45	0.04	0.38	0.11	0.96	139
Wolverhampton	95,362	24.5	15.4	0.01	–	0.69	0.05	0.09	0.05	1.42	136
Birmingham ..	526,030	27.5	16.4	0.06	–	0.54	0.12	0.19	0.12	1.67	164
Leicester	227,634	22.2	13.0	0.04	–	0.29	0.04	0.18	0.09	0.89	132
Nottingham ..	260,447	24.3	15.9	0.10	–	0.37	0.03	0.15	0.12	1.57	163
Derby	123,648	23.4	14.0	0.06	–	0.42	0.01	0.18	0.19	0.68	124
Birkenhead....	131,330	29.1	15.9	0.07	–	0.18	0.03	0.24	0.19	1.64	135
Liverpool	747,627	29.9	19.8	0.04	–	0.41	0.17	0.31	0.16	1.95	155
Bolton	181,202	22.5	15.6	0.12	–	0.34	0.12	0.08	0.23	1.87	164
Manchester ...	716,166	26.2	16.9	0.07	–	0.47	0.06	0.20	0.12	1.53	155
Salford	231,641	26.7	16.4	0.07	–	0.42	0.09	0.16	0.23	1.50	149
Oldham	147,751	23.8	17.7	0.02	–	0.45	0.03	0.09	0.08	1.55	161
Burnley.......	106,569	23.2	17.9	0.08	–	0.64	0.04	0.29	0.20	2.44	209
Blackburn	133,160	21.3	15.9	0.07	–	0.22	0.08	0.40	0.21	1.46	188
Preston	**117,216**	**23.2**	**16.8**	**0.17**	–	**0.04**	**0.16**	**0.18**	**0.26**	**1.39**	**175**
Huddersfield ..	108,144	20.4	15.5	0.07	–	0.16	0.14	0.10	0.21	0.83	134
Halifax	101,471	18.0	14.7	0.11	–	0.07	0.08	0.25	0.21	0.55	123
Bradford	288,723	18.9	14.8	0.15	–	0.04	0.03	0.33	0.17	0.68	139
Leeds.........	445,983	23.2	15.9	0.05	–	0.17	0.10	0.32	0.32	1.27	159
Sheffield	455,793	27.4	15.8	0.06	–	1.64	0.05	0.13	0.09	1.17	140
Hull	278,968	28.5	16.6	0.22	–	0.36	0.05	0.36	0.07	1.98	156
Sunderland ...	151,289	29.3	17.6	0.04	–	0.32	0.04	0.61	0.13	1.12	154
Gateshead.....	117,104	29.4	15.3	0.02	–	0.61	0.03	0.23	0.24	1.17	137
Newcastle	267,162	26.0	15.7	0.04	–	0.45	0.05	0.46	0.14	0.84	136
Cardiff	182,729	25.3	13.6	0.03	–	0.03	0.08	0.29	0.19	1.35	133
Swansea	115,176	30.4	16.8	0.01	–	0.29	0.02	0.14	0.42	1.22	135
Warrington ...	72,376	28.0	15.3	0.07	–	0.18	0.05	0.44	0.14	1.75	147
St. Helens	96,870	33.0	18.1	0.24	–	0.71	0.14	0.38	0.07	2.14	158
Stockport	109,090	23.6	15.8	0.09	–	0.32	0.04	0.09	0.08	1.65	171
Middlesbrough	105,124	30.8	19.2	0.07	–	0.73	0.07	0.73	0.26	1.38	169
South Shields..	108,844	29.4	16.6	0.03	–	0.37	0.01	0.20	0.08	1.34	148
Northampton...	90,152	20.8	12.8	0.12	–	0.00	0.00	0.07	0.14	1.12	130

TABLE No. 6.

The estimated Population, Number of Births and Deaths, Rates per thousand, and natural increase within the Borough, for each year since 1842.

Years.	Estimated Population.	No. of Deaths.	Death Rate per 1,000.	No. of Births.	Birth Rate per 1,000.	Natural Increase.
1842	52,840	1550	29.33	1944	36.79	394
1843	54,680	1459	26.38	1975	36.12	516
1844	56,520	1380	24.42	2200	38.92	820
1845	58,360	1635	28.01	2293	39.29	558
1846	60,200	2189	36.36	2475	41.09	286
1847	62,050	2059	33.18	2268	36.59	209
1848	63,900	1550	24.26	2223	34.79	673
1849	65,750	1751	26.63	2403	36.55	652
1850	67,000	1745	25.81	2649	39.19	904
1851	69,450	2241	32.26	2803	40.36	562
1852	70,850	2284	32.23	2998	42.31	714
1853	72,250	2346	32.47	3072	42.51	726
1854	73,600	2013	27.35	3037	41.26	1024
1855	75,000	2557	34.10	3071	40.95	514
1856	76,400	2251	29.46	3151	41.24	900
1857	77,800	2131	27.39	3286	42.24	1155
1858	79,200	2545	32.13	3082	38.91	537
1859	80,600	2111	26.19	3399	42.17	1288
1860	82,000	2236	27.27	3381	41.23	1145
1861	82,985	2585	31.15	3626	43.69	1041
1862	83,231	2411	28.97	3522	42.32	1111
1863	83,477	2142	25.66	3388	40.57	1246
1864	83,686	2432	29.06	3422	40.89	990
1865	83,932	2708	32.26	3338	39.77	630
1866	84,178	2854	33.90	3535	41.99	681
1867	84,424	2608	30.89	3732	44.20	1124
1868	84,670	2798	33.04	3710	43.82	912
1869	84,916	2248	26.47	3434	40.44	1186
1870	85,162	2406	28.25	3486	40.93	1080
1871	85,427	2541	29.75	3438	40.24	897
1872	85,654	2294	26.78	3704	43.24	1410
1873	86,000	2899	33.71	3558	41.37	659
1874	86,000	2962	34.44	3582	41.65	620
1875	86,000	2581	30.01	3499	40.68	918
1876	86,600	2331	26.92	3623	41.84	1292
1877	87,000	2336	26.85	3601	41.39	1265
1878	87,300	2502	28.66	3697	42.35	1195
1879	87,600	2395	27.34	3403	38.83	1068
1880	88,000	2425	27.35	3475	39.49	1050
1881	96,524	2044	21.17	3489	36.14	1445
1882	97,656	2511	25.71	3785	38.76	1214
1883	98,564	2345	23.79	3576	36.28	1231
1884	99,481	2540	25.53	3745	37.64	1205
1885	100,406	2563	25.52	3868	38.52	1305
1886	101,340	2769	27.32	3961	39.08	1192
1887	102,283	2703	26.42	3870	37.83	1167
1888	103,234	2326	22.53	3823	37.03	1497
1889	104,194	2019	28.97	3912	37.63	902
1890	105,163	2726	25.92	3718	35.35	992
1891	107,864	2807	26.02	3830	35.50	1023
1892	109,038	2481	22.75	3686	33.80	1205
1893	110,225	2753	24.97	3809	34.55	1056
1894	111,425	2186	19.61	3545	31.81	1359
1895	112,638	2528	22.44	3702	32.95	1174
1896	113,864	2191	19.24	3673	32.25	1482
1897	115,103	2687	23.34	3687	32.03	1000
1898	116,356	2107	18.10	3559	30.58	1452
1899	117,622	2492	21.18	3492	29.68	1000
1900	118,902	2636	22.16	3410	28.67	774
1901	113,117	2213	19.56	3418	30.21	1205
1902	113,766	1998	17.56	3278	28.81	1280
1903	114,404	1955	17.08	3453	30.18	1498
1904	115,055	2091	17.83	3314	28.26	1223
1905	115,721	1906	16.47	3259	28.16	1353
1906	116,399	2065	17.74	3317	28.49	1252
1907	117,093	2003	17.10	3124	26.68	1121
1908	117,799	1975	16.45	3309	27.56	1334
1909	118,519	1721	14.52	3027	25.54	1306
1910	119,253	1758	14.74	2812	23.58	1054
1911	117,216	1817	15.50	2726	23.25	909

TABLE No. 7.

Per centage of Deaths from Zymotic Diseases to Sickness reported during the Year ending December 31st, 1911.

Disease.	No. of Cases Reported.	No. of Deaths.	Per centage.
Small Pox	2	...	...
Typhoid Fever	113	19	16·81
Scarlet Fever	374	19	5·08
Diphtheria	232	32	13·79
Puerperal Fever	6	2	33·33
Erysipelas	98	1	1·02

TABLE No. 8.

Meteorological Observations for the Year 1911.

Month.	Attached Thermometer.	Barometer.	Barometer corrected to 32 deg. Fahr.	Hygrometer		Temperature in Shade.		Earth Thermometer		Mean Daily Temperature.	Humidity Saturation=100.	Rainfall in inches.
				Dry Bulb.	Wet Bulb.	Maximum	Minimum	One Foot.	Four Feet.			
January ...	39·2	30·159	30·277	40·5	39·7	43·2	36·6	...	43·1	39·9	92	1·09
February ..	38·9	30·072	30·191	40·5	38·8	43·4	35·7	...	41·8	39·6	85	3·33
March	41·0	29·802	29·931	42·5	40·3	46·1	36·2	...	42·8	41·1	85	1·70
April	44·8	29·883	29·983	46·3	43·1	50·6	40·1	...	42·9	45·3	77	3·12
May	54·9	29·861	29·931	56·5	52·1	61·3	47·5	...	47·4	54·4	73	1·26
June	61·4	29·958	30·010	62·9	56·3	70·9	52·0	...	53·1	61·4	66	2·00
July	63·3	30·068	30·114	64·6	57·8	69·9	55·5	...	55·1	62·7	65	1·28
August	66·0	29·927	29·964	67·6	61·2	74·5	58·8	...	59·1	66·6	66	3·35
September	57·4	29·972	30·036	58·8	54·5	63·0	51·5	...	57·3	57·2	75	5·22
October	48·6	29·805	29·895	50·2	48·3	54·6	45·0	...	52·1	49·8	86	1·61
November	43·4	29·576	29·682	45·5	43·0	47·6	39·7	...	48·6	43·6	89	4·82
December	42·9	29·451	29·559	43·5	42·6	46·7	39·3	...	45·2	42·9	92	4·36

TABLE No. 9.

SANITARY INSPECTORS.

Summary of Work done during the Year 1911.

	No. 1 District	No. 2 District.	No. 3 District.	No. 4 District.	Total.
Number of Complaints received	320	848	290	463	1,921
Inspections of Dwelling Houses	3608	1915	3245	3064	11,832
,, Infected Houses	350	456	262	250	1,318
,, Lodging Houses	20	1319	96	2631	4,066
,, Cellars and Cellar Dwellings	...	2	62	87	151
,, Canal Boats	...	...	...	123	123
,, Vans and Tents	19	60	36	27	142
,, Schools	30	9	16	16	71
,, Cowsheds, Dairies and Milkshops	80	12	140	255	487
,, Slaughter Houses	52	2	122	95	271
,, Markets	...	142	50	1084	1,276
,, Drains and Yards	2080	2197	3400	3825	11,502
Re-Inspections	1563	352	1670	2493	6,078
Smoke Observations	120	117	117	126	480
Circular Letters sent	159	147	206	214	726
Number of Voting Papers delivered and collected	...	...	48	...	48
Notices served for Defective Slopstone Pipes	28	6	56	16	106
,, ,, Drains	159	100	189	176	624
,, ,, Spouts	39	12	90	56	197
,, ,, Water Closets	153	56	180	124	513
,, ,, Water Closet Doors	20	...	...	...	20
,, ,, Lobby Pavement	4	...	...	...	4
,, ,, Yard Pavement	27	51	16	15	109
,, ,, Roofs	4	...	34	...	38
,, Overcrowding	2	1	4	1	8
,, Limewashing	38	87	49	29	203
,, Manure Accumulation	7	2	13	48	70
,, General Nuisances	93	62	105	139	399
Notices served to Flag Yards	20	45	73	183	321
,, Flag Lobbies	4	42	15	39	100
,, Convert Privies into W.C's.	6	2	...	10	18
,, Provide New W.C.'s	...	...	...	11	11
,, Supply Ashpails	54	59	17	33	163
,, Abolish Ashpits	4	2	...	2	8
,, Close Houses unfit for Habitation	...	12	...	...	12
House Drains Tested	106	50	33	83	272
Number of Houses Fumigated	254	301	205	245	1,005
,, Sprayed	7	9	1	2	19
Number of Schools Disinfected	11	17	6	11	45
Number of Places of Amusement Disinfected	4	9	1	5	19
Parcels of Bedding Disinfected	7	5	15	14	41
Number of Animals removed	71	168	58	154	451
,, Ashpails cleansed	...	...	...	...	1,704,988
,, Ashpits ,,	...	...	...	...	588
Fish Condemned and Destroyed	...	...	Shell Wet Dry	1284lbs. 27540 ,, 410 ,,	29234

TABLE No. 5A.

Factories, Workshops, Workplaces and Home-Work.

1.—INSPECTION.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries)	132	21	...
Workshops (including Workshop Laundries)	2307		...
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	98		...
Total	2537	21	...

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts :—				
Want of Cleanliness	19	19		
Want of Ventilation	6	6		
Overcrowding	...	...		
Want of drainage of floors	...	...		
Other Nuisances	74	58		
Sanitary accommodation — insufficient	21	21		
Sanitary accommodation — unsuitable or defective	108	108		
Sanitary accommodation — not separate for sexes	...	...		
Offences under the Factory and Workshops Act :—				
Illegal occupation of underground bakehouse (s. 101)	...	...		
Breach of special Sanitary requirements for bakehouses (s.s. 97 to 100)	...	...		
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report)	...	...		
Total	228	212		

3.—HOME WORK.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.									OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
	Lists received from Employers						Notices served on Occupiers as to keeping or sending Lists.	Prosecutions.		Instances.	Notices served.	Prosecutions.	Instances.	Orders made (S. 110).	Prosecutions (Sections 109, 110).
	Twice in the Year.			Once in the Year.				Failing to keep or permit Inspection of Lists.	Failing to send Lists.						
	Lists.	Outworkers.		Lists.	Outworkers.										
		Contractors.	Workmen.		Contractors.	Workmen.									
Wearing Apparel :—															
(1) making, &c.	40	4	56	2	...	2	...	...	...	...	...	...	...	...	...
(2) cleaning and washing	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	80	8	112	2	...	2	...	...	...	...	...	...	...	...	...

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.	Number.
Factories	120
Workshops	839
Workplaces	85
Retail Bakehouses	133
Public do.	20
Total number of Workshops on Register	1197

5.—OTHER MATTERS.

Class.		Number.
Matters notified to H.M. Inspector of Factories :—		
Failure to affix Abstract of the Factory and Workshop Act (s. 133) ...		...
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5).	Notified by H.M. Inspector	63
	Reports (of action taken) sent to H.M. Inspector...	63
Other		165
Underground Bakehouses (s. 101) :—		
Certificates granted during the year		...
In use at the end of the year		3

TABLE No. 10.

Summary of Work done under the Factory and Workshop Act during the Year 1911.

	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	Total.
Number of Factories and Workshops on Register...	196	415	167	419	1197
,, Circular Letters sent re Out-workers...	...	40	2	36	78
,, Out-workers reported	2	52	2	58	114
Visits to Factories and Workshops	320	473	356	611	1760
,, Retail Bakehouses	80	270	70	150	570
,, Public Bakehouses	60	24	36	87	207
,, Home-workers premises	10	29	40	64	143
Drains tested	...	3	1	9	13
Defects found and Remedied:—					
Defective Drains	4	2	8	17	31
,, Spouts and Roofs	2	1	3	5	11
,, Water Closets	73	11	12	12	108
Limewashing required	5	4	5	5	19
General Nuisances	2	4	6	13	25
Insufficient W.C. accommodation for Females	...	...	3	9	12
,, ,, Males	1	3	2	3	9
No receptacle for Refuse	...	..	...	5	5
Manure Accumulations	2	...	...	2	4
Various	...	...	...	4	4

TABLE No. 11.

List of Factories and Workshops on Register during the Year 1911.

		No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	Total.
Bakers and Confectioners (Retail)		26	49	18	41	134
Bakers (Public)		4	7	4	5	20
Basket Makers		...	2	2	1	5
Beer Bottlers		4	2	1	6	13
Biscuit Makers		...	4	1	...	5
Boot, Shoe and Clog Makers, Leather Curriers		24	56	22	30	132
Brass Founders		1	2	2	2	7
Breweries		1	4	2	3	10
Brush Makers		1	1	...	2	4
Cabinet Makers, Wood Carvers, Upholsterers		4	11	3	19	37
Coach Builders		1	5	...	5	11
Cotton Waste Cleaners and Dealers		...	1	...	2	3
Cotton Manufacturers		23	14	20	8	65
Coopers		1	3	1	1	6
Cycle Makers and Enamellers		6	11	4	7	28
Engravers		3	...	...	6	9
French Polishers		1	2	...	3	6
Ironfounders		4	5	5	4	18
Joiners, Builders, Wheelwrights, Wood Turners		12	24	6	16	58
Laundries		2	...	3	1	6
Marine Store Dealers		...	4	...	4	8
Milliners, Dressmakers, Underclothing Manufacturers		24	80	24	68	196
Picture Framers, Mount Cutters, Gilders		2	4	3	6	15
Photographers		4	3	1	3	11
Plumbers, Painters		10	13	8	20	51
Printers, Bookbinders		...	1	1	18	20
Restaurant Keepers		6	5	3	4	18
Rope and Twine Makers		2	...	2	...	4
Saddlers		...	6	1	4	11
Smiths, Black and White and Tinplate		5	9	5	27	46
Stone and Marble Masons		4	4	3	4	15
Sugar Boilers		4	1	1	...	6
Tailors		8	36	8	57	109
Watch Makers and Jewellers		6	14	8	10	38
Wire Workers		...	1	1	1	3
Offensive Trades	Fell Mongers	...	...	...	1	1
	Soap Boilers	...	...	1	3	4
	Fat and Tallow Melters	1	4	...	3	8
	Knacker Yards	1	...	...	...	1
	Gut Scrapers	...	4	...	...	4
	Tripe Boilers	1	2	...	1	4
Various		2	21	3	23	49

TABLE No. 12.

HEALTH VISITORS.

Summary of Work done during the Year 1911.

			District A.	District B.	District C.	District D.	Total.
Visits, Births.		Number of Houses visited	710	647	655	695	2707
		,, ,, Found Clean	657	617	643	597	2514
		,, ,, Found Dirty	53	30	12	98	193
	Children	Breast Fed	626	570	618	664	2478
		Partially Breast Fed ...	4	7	...	...	11
		Artificially Fed	80	70	37	31	218
	Occupation of Mother.	Home Permanently	487	311	418	470	1686
		Home Temporarily ...	221	309	233	162	925
		Home and Work	1	27	4	63	95
Visits, House to House.		Number of Houses visited	545	...	316	468	1329
		,, ,, Found Clean	445	...	209	141	795
		,, ,, Found Dirty	100	...	107	327	534
Visits, Infectious Disease.		Number of Houses visited	222	384	216	254	1076
		Measles	26	84	60	90	260
		Whooping Cough	57	89	60	50	256
		Chicken Pox	48	51	35	52	186
		Mumps, Ringworm, Eczema, Sore Head, &c.	91	160	61	62	374
Visits, Measles, Whooping Cough, Deaths.		Number of Houses visited	1	5	...	4	10
		,, ,, Found Clean	1	5	...	4	10
		,, ,, Found Dirty	...	...	...	...	...
Visits, Diarrhoea, Deaths.		Number of Houses visited	25	25	34	27	111
		,, ,, Found Clean	22	21	34	20	97
		,, ,, Found Dirty	3	4	...	6	13
	Children	Breast Fed	3	3	1	1	8
		Partially Breast Fed ...	3	...	...	3	6
		Artificially Fed	19	22	33	22	96
		Number of Re-visits	1542	1508	1540	1246	5836
		,, Tube Bottles in use	45	59	27	151	282
		,, Cards distributed	705	647	655	695	2702
Visits. Re-visits.		Defects in School Children reported by Schools' Medical Officer	216	405	557	520	1698
		,, ,, ...	338	97	...	36	471
Inspection of Heads.		Number of Schools visited......	9	16	24	17	66
		,, Children Inspected in School	1832	3119	3174	1632	9757
		,, Children visited at Home ...	135	76	202	93	506
		,, Half-days in School	25	30	31	19	105

TABLE No. 13.

Return of Work done by Inspector of Food and Drugs, &c., during the Year 1911.

Food and Drugs, Samples purchased	264
Visits to Cow-sheds and Dairies	172
Visits to Slaughter-houses	4111
Meat Condemned and Destroyed	133,795 lbs.

TABLE No. 14.

Contagious Diseases (Animals) Act, 1878.

Name of Disease.	Situation of Premises.	Date of Out-break.	Number of Diseased Animals.	Number of Healthy Animals.	Slaughtered by Owner.	Slaughtered by Order of Board of Agriculture	Number of Visits.
Parasitic Mange.	Brunswick Street.	Jan. 23	One	None	None	None	7
do.	Lune Street	May 18	One	None	None	None	4
Anthrax .	Cattle Market ...	Feb. 7	One	Three	None	None	2

TABLE No. 15.

Substances submitted for Analysis during the year 1911.

Name of Article.	No. of Samples.	RESULT.
Bread	5	Genuine.
Butter	43	do.
Cheese	6	do.
Cocoa	1	do.
Coffee	23	do.
Lard	39	do.
Milk	49	do.
Pepper (White) ...	8	do.
Shrimps	1	do.
Sweets (Chocolate)..	1	do.
Vinegar	1	do.
Whisky	19	do.
	196	do.
Milk	1	Contained 2.45 per cent. fat, 7.49 per cent other solids = 9.94 per cent. total solids; 10 per cent. added water. Summoned and fined 20/- and costs.
Milk	1	Contained 2.63 per cent. fat, 8.90 per cent. other solids = 11.53 per cent. total solids.
Milk	1	Contained 2.72 per cent. fat, 9.20 per cent other solids = 11.92 per cent. total solids. Vendor cautioned.
Milk	1	Contained 2.81 per cent. fat, 6.64 per cent. other solids = 9.45 per cent. total solids; 21 per cent added water. Vendor summoned, and fined 10/- and costs.
Milk	1	Contained 2.84 per cent. fat, 8.18 per cent. other solids = 11.02 per cent total solids. Vendor cautioned.
Milk	1	Contained 2.85 per cent. fat.
Milk	1	Contained 2.85 per cent. fat. Vendor cautioned.
Milk	1	Contained 2.85 per cent. fat.
Milk	1	Contained 2.97 per cent. fat, 7.76 per cent. other solids = 10.73 per cent. total solids; 8 per cent. added water. Vendor summoned, and fined 20/- and costs.
Milk	1	Contained 3.18 per cent. fat, 6.91 per cent. other solids = 10.09 per cent. total solids; 18 per cent. added water. Vendor summoned; case dismissed.
Milk	1	Contained 3.39 per cent. fat, 7.79 per cent. other solids = 11.18 per cent. total solids; 8 per cent. added water. Vendor summoned and fined 20/- and costs.
Milk	1	Slightly watered; non-fatty solids, 8.19 per cent.
Milk	1	Contained $2\frac{3}{4}$ grains borates, calculated as Boracic Acid, per pint. Vendor cautioned.
Shrimps (Potted) ..	1	Contained 0.9 per cent. borates. Vendor summoned, case withdrawn on payment of costs.
Whisky	1	25.9 degrees under proof, which is 0.9 per cent. below the Statutory limit.

TABLE No. 16.

Substances informally purchased and submitted for Analysis during the year 1911.

Name of Article.	No. of Samples.	RESULT.
Butter	22	Genuine.
Coffee	5	do.
Cod Liver Oil	1	do.
Lard	11	do.
Milk	3	do.
Sugar.............	1	do.
Sweets	2	do.
Whisky	2	do.
	47	Genuine.
Coffee	1	Contained 20 per cent. of Chicory.
Coffee	1	Contained 35 per cent of Chicory.
Cream	1	Contained 0.25 per cent. of Boracic Acid
Milk	1	Contained 2.50 per cent. fat, 8.93 per cent. other solids = 11.50 per cent. total solids.
Milk	1	Contained 4 per cent. added water.
Nut Lard	1	Consisted of Cocoanut fat, and is entirely devoid of Lard.

TABLE No. 17.

Return of Port Sanitary Work for the Year ending December 31st, 1911.

Steamships Inspected		1123
Sailing Vessels Inspected		48
Re-Inspections		132
Condition of Vessels Inspected	Good	1041
	Defective	130
Defects Remedied:—		
Forecastle Dirty		36
Do. Required painting		12
Do. Deck Leaking		1
Do. Ventilation and Light Defective		26
Foul and Defective Water Closets		56
Foul Water Casks and Tanks		4
Dirty Provision Lockers		69
Do. Bilges		3
Do. Chain Lockers under Forecastle		2

Public Health (Unsound Food) Regulations, 1908.

LIST OF ARTICLES INSPECTED

Raisins
Currants
Figs
Prunes
Hams
Bacon
Lard
Lard Substitute
Flour,
Oat Meal
Peas
Beans
Rice
Barley
Tapioca
Sugar
Potatoes
Nuts
Pigs' Feet in Salt

Tinned Goods

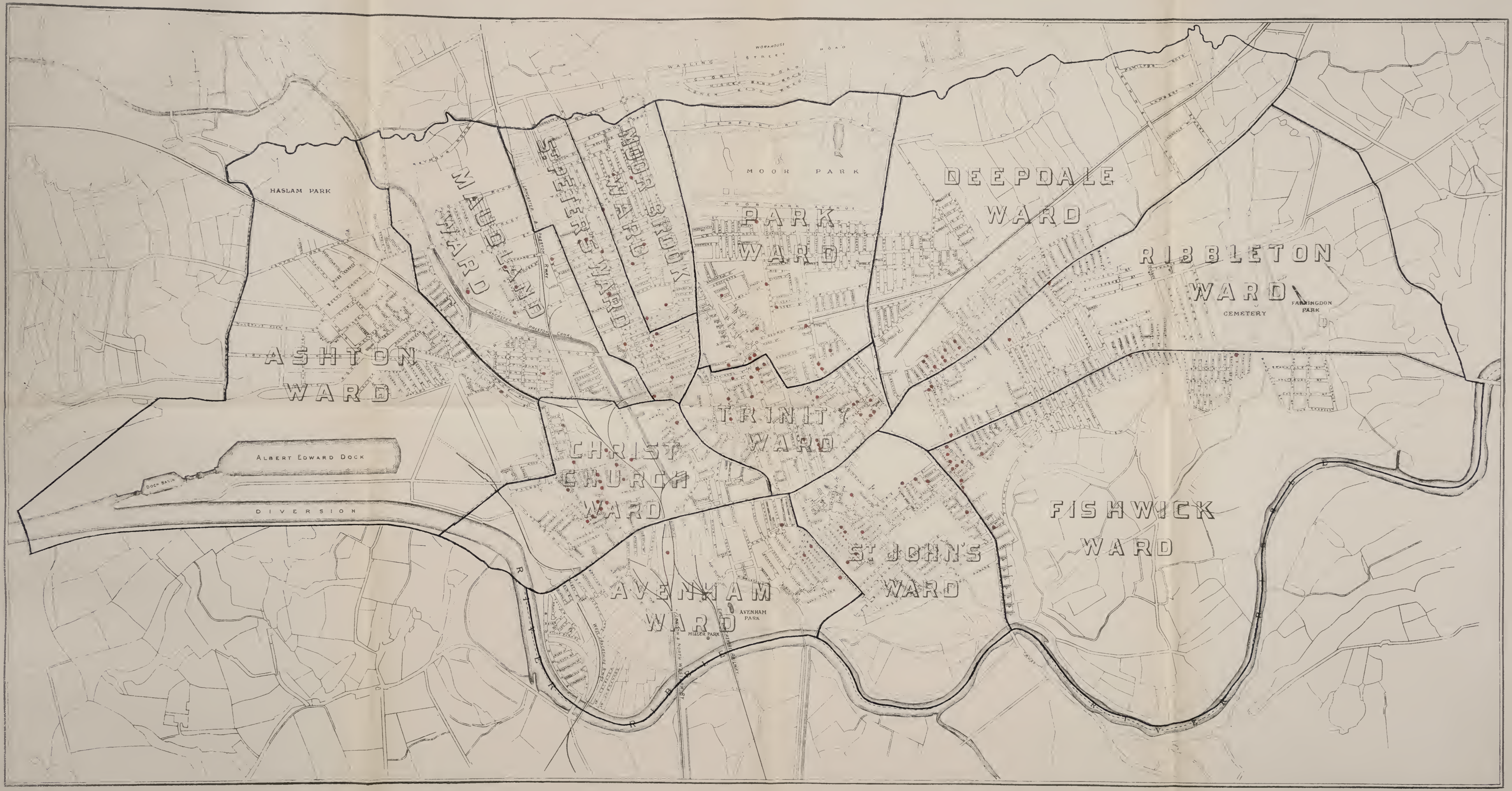
Salmon
Sardines
Beef
Mutton
Tongues
Peaches
Pears
Pineapple
Apricots
Tomatoes

Goods destroyed or rejected :—

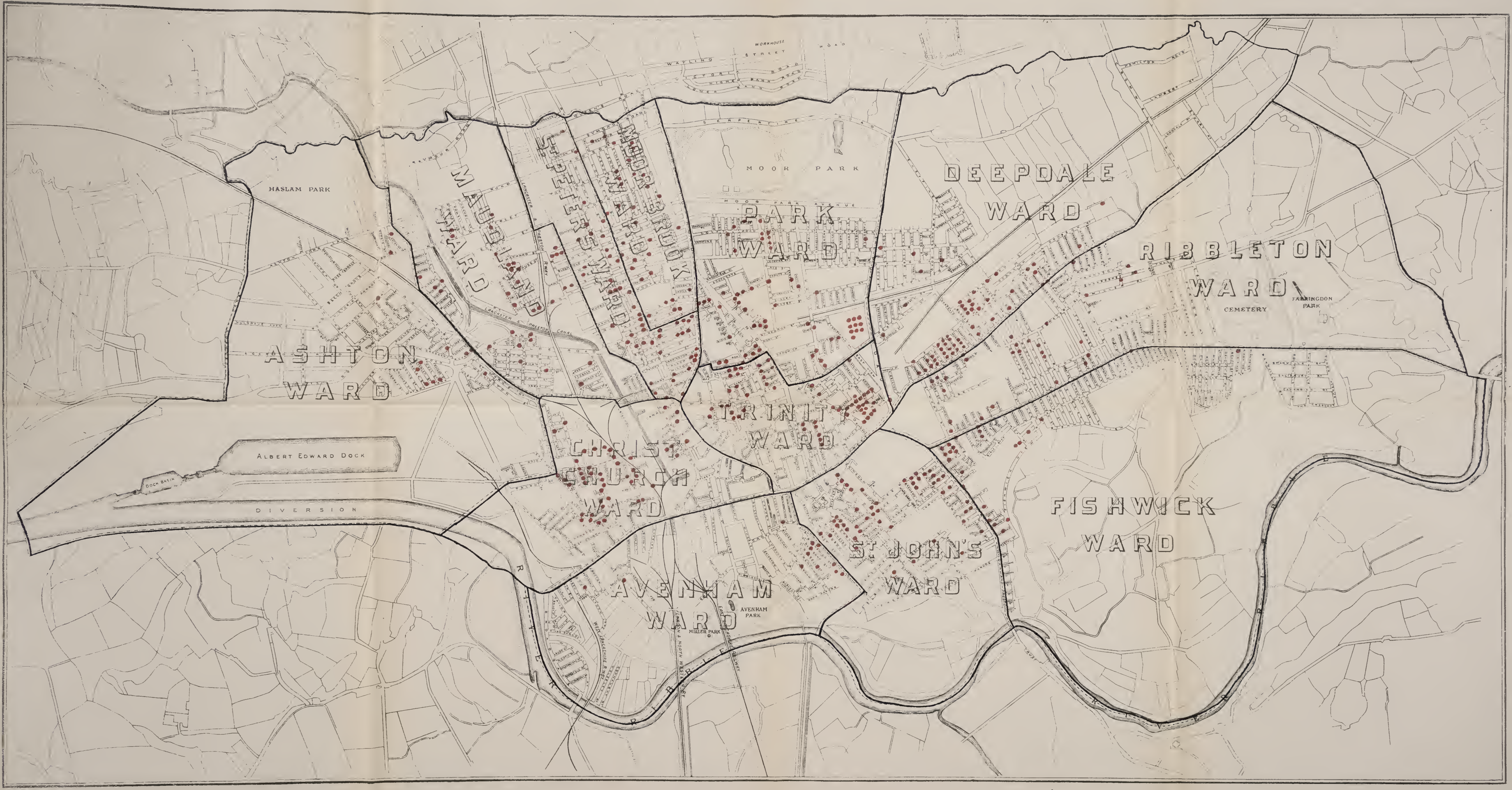
Sugar, 6 tons rejected, sent back for re-manufacture.
Potatoes, 1½ tons destroyed,
Pork, 2 carcases destroyed.
Beef, 3 carcases destroyed.
A quantity of Tinned Salmon destroyed.

INFANTILE DIARRHŒA, 1911.

The Red Spots ● indicate deaths from Diarrhœa under the age of one year.

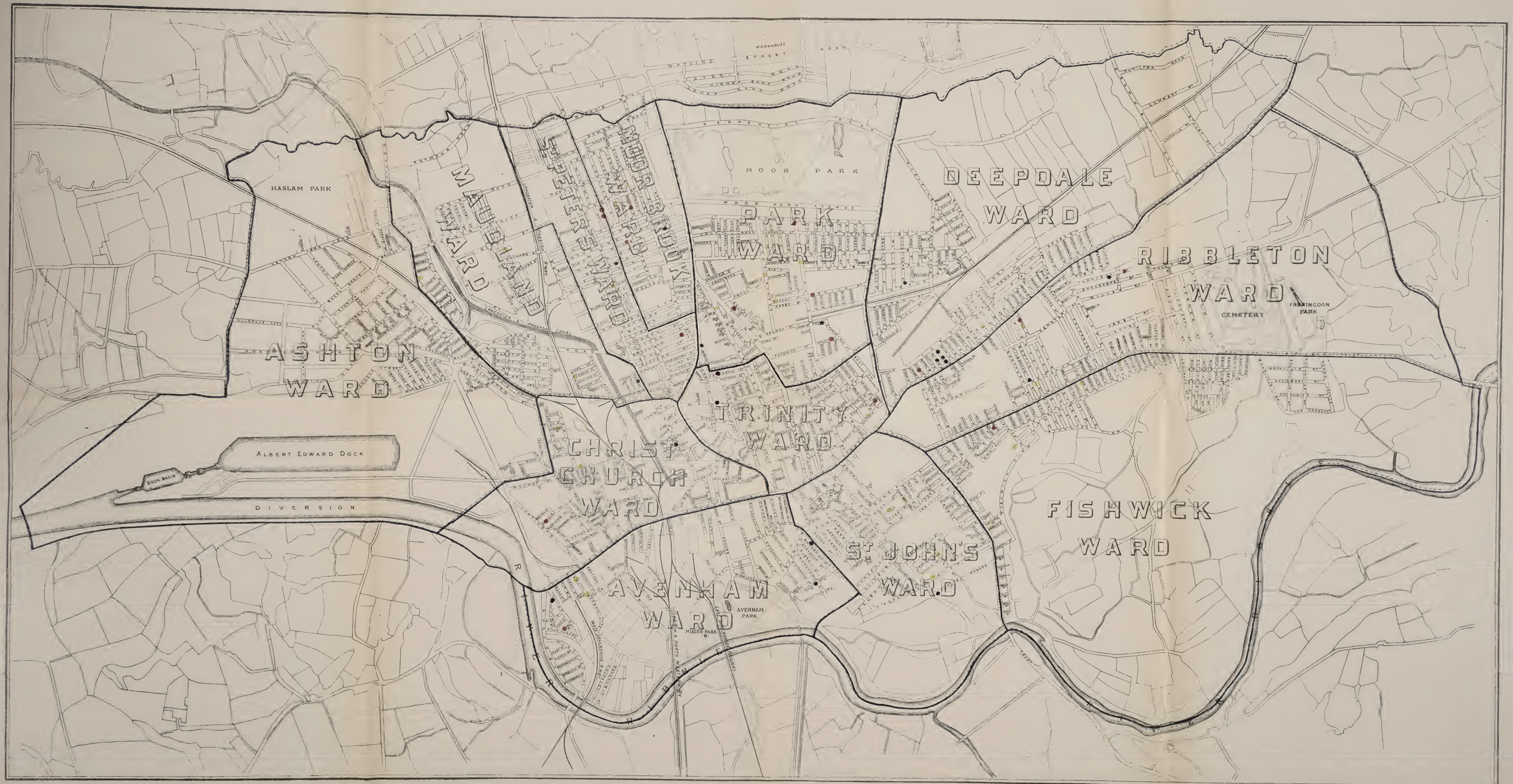


INFANTILE MORTALITY, 1911.

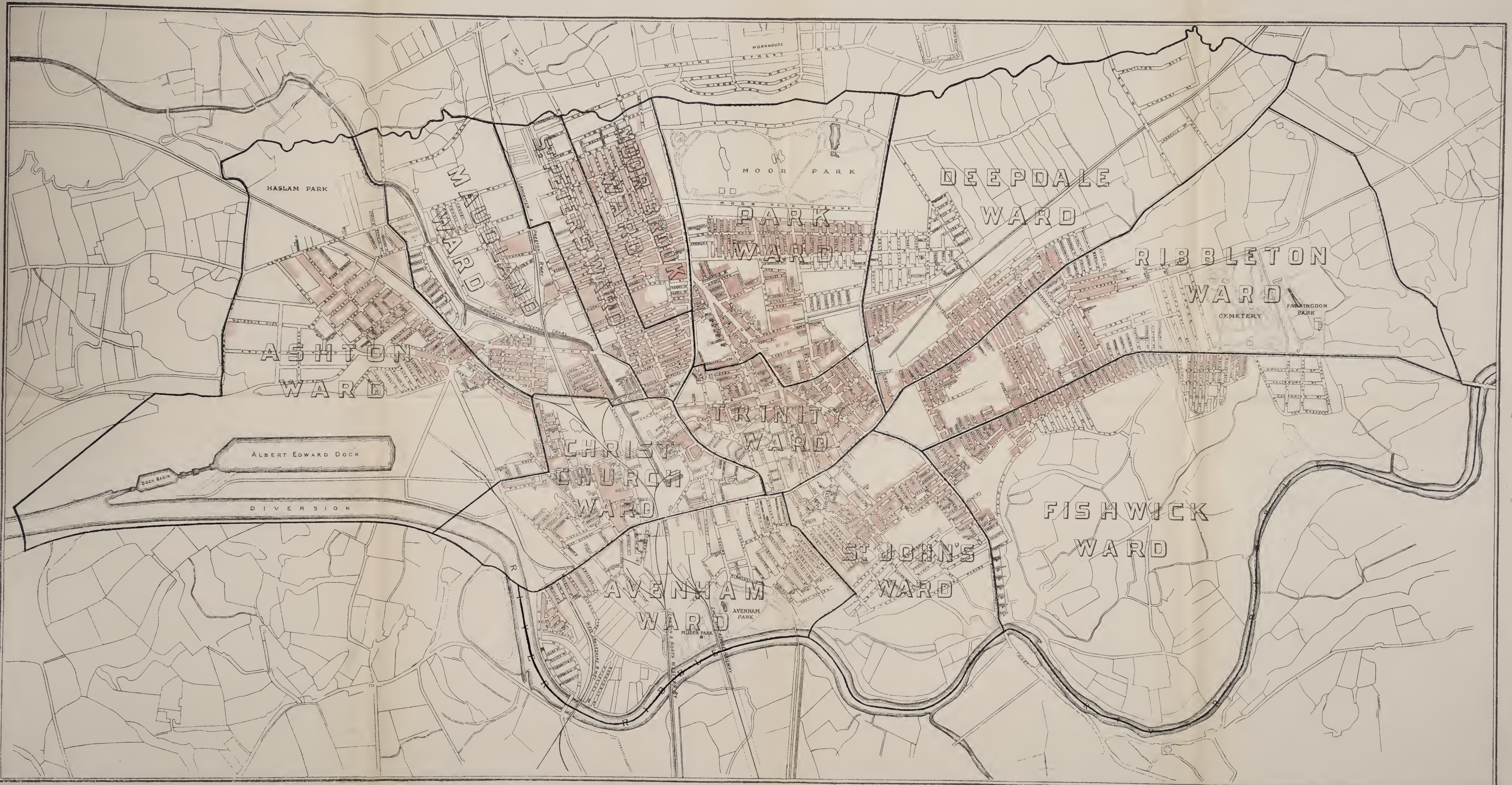


ZYMOTIC DISEASES, 1911.

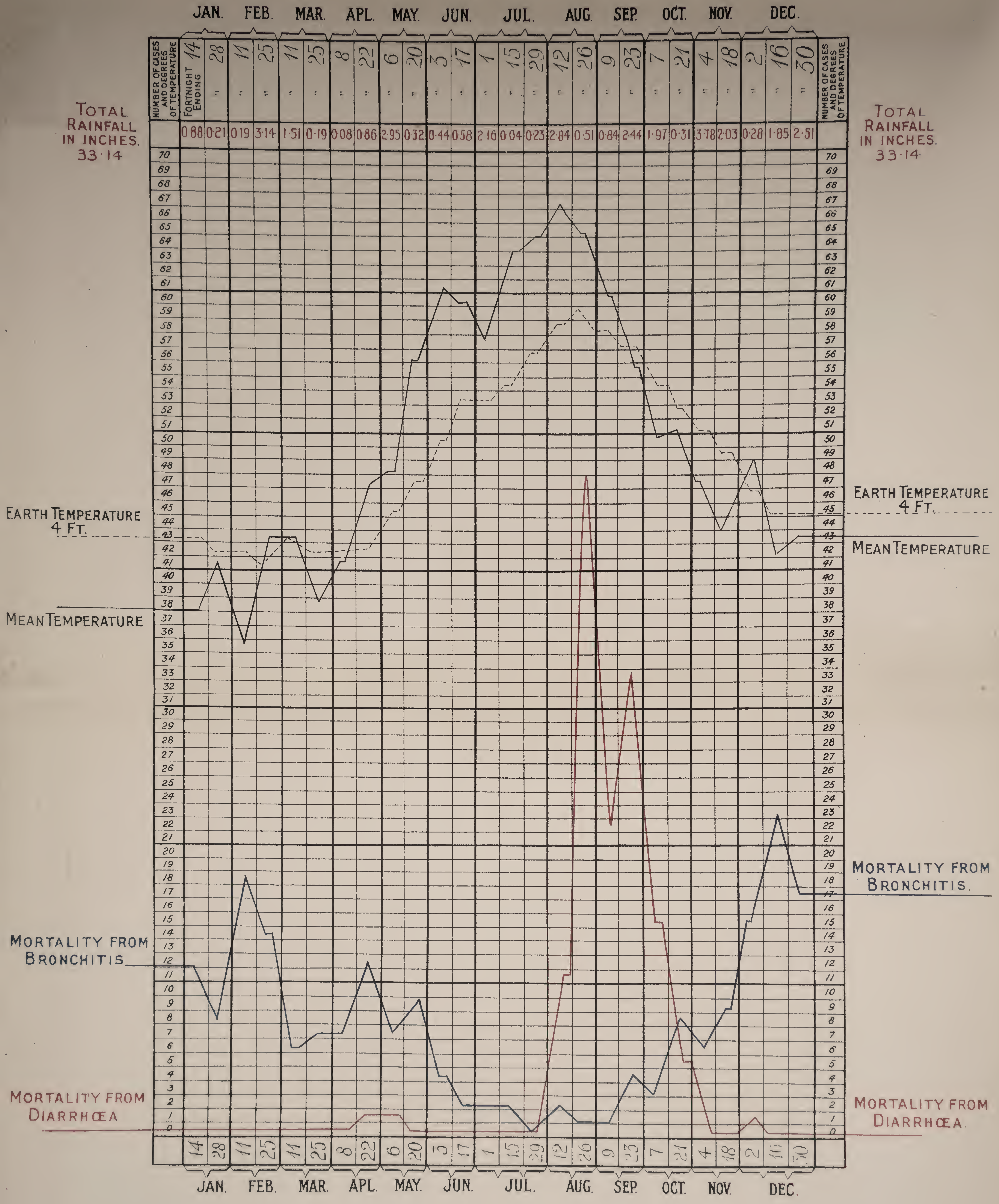
The Red Spots ● indicate deaths from Scarlet Fever.
The Blue Spots ● indicate deaths from Typhoid Fever.
The Yellow Spots ● indicate deaths from Diphtheria.



Portions coloured Red indicate Property reported upon and improved during recent years.



R. SEED & SONS, LITHO., PRESTON


JAN. FEB. MAR. APL. MAY. JUN. JUL. AUG. SEP. OCT. NOV. DEC.
NUMBER OF CASES AND DEGREES OF TEMPERATURE
FORTNIGHT ENDING
14 28 11 25 11 25 8 22 6 20 3 17 1 15 29 12 26 9 23 7 21 4 18 2 16 30
0.88 0.21 0.19 3.14 1.51 0.19 0.08 0.86 2.95 0.32 0.44 0.58 2.16 0.04 0.23 2.84 0.51 0.84 2.44 1.97 0.31 3.78 2.03 0.28 1.85 2.51
TOTAL RAINFALL IN INCHES. 33·14
EARTH TEMPERATURE 4 FT.
MEAN TEMPERATURE
MORTALITY FROM BRONCHITIS.
MORTALITY FROM DIARRHŒA.
70 … 0